FREIGHT TRAFFIC

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February 23, 1970

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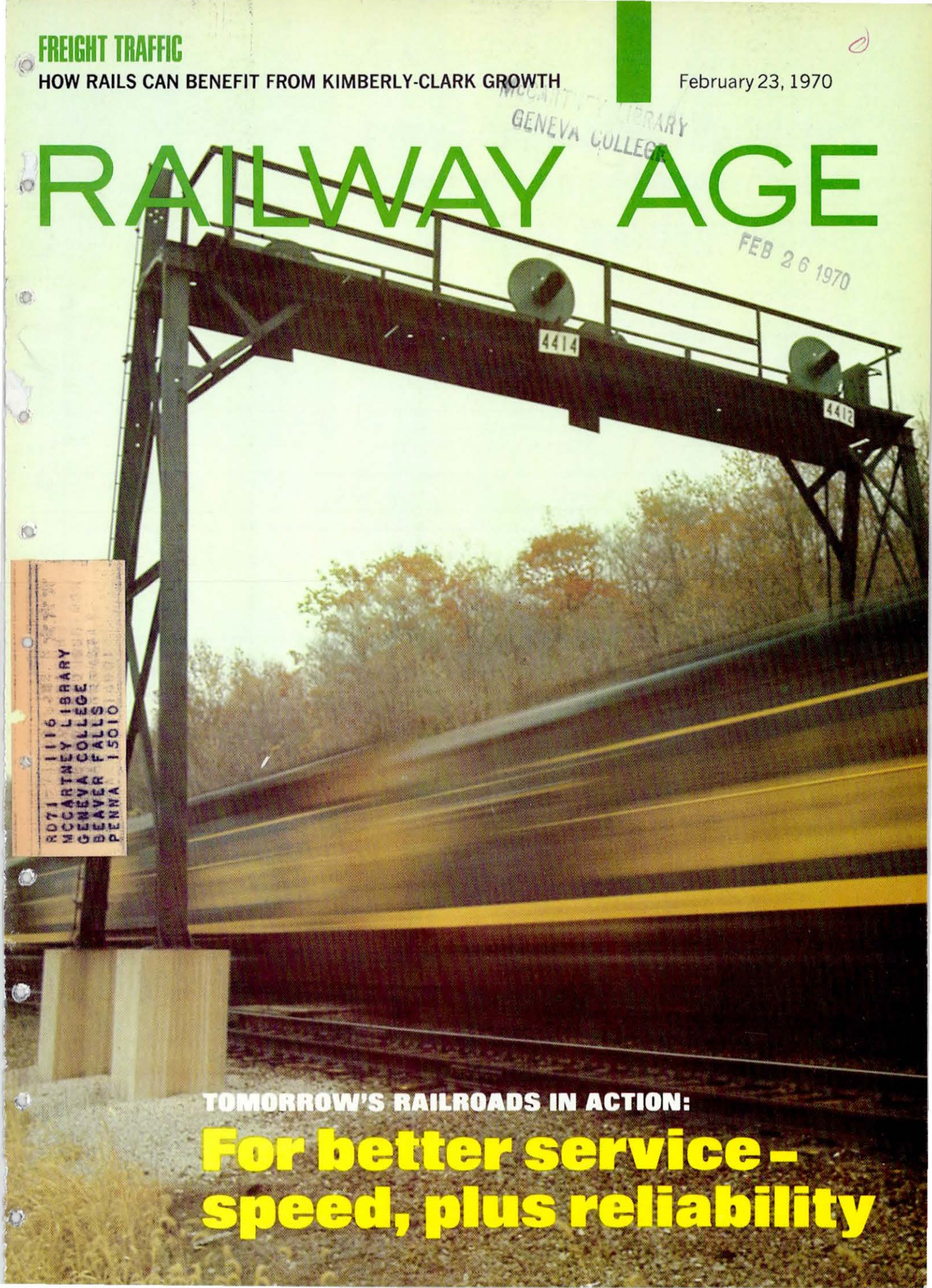

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Finish:	Gloss	Low Lustre	High Gloss
Color Choice:	White, Blue	White, Blue	White, Blue, Clear, pastel colors
Application Technique:	Conventional or airless spray, hot or cold	Conventional or airless spray, hot or cold	Conventional or airless spray, hot or cold
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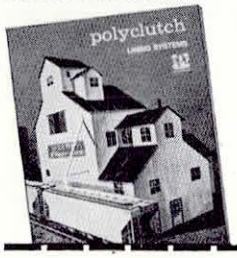

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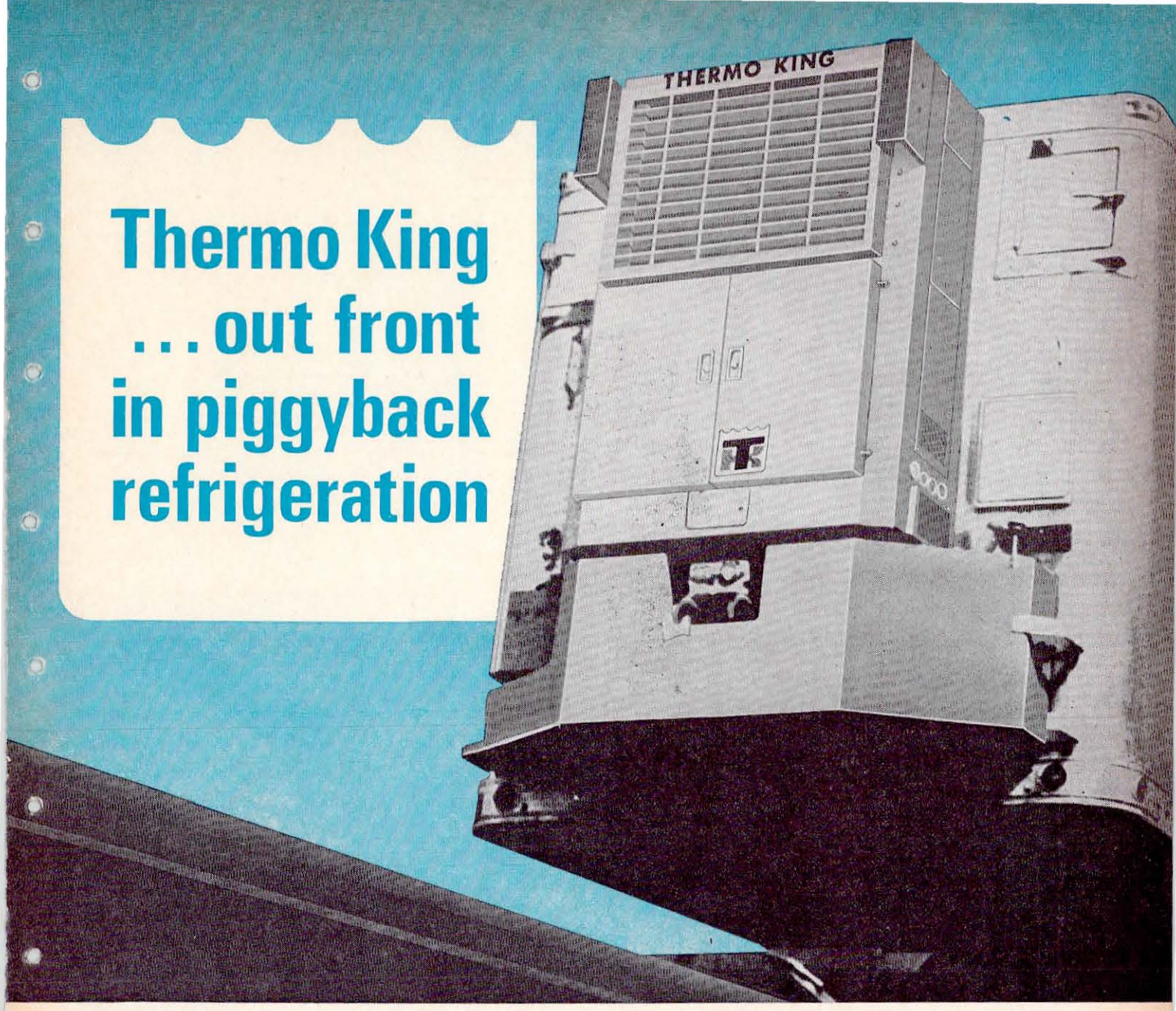

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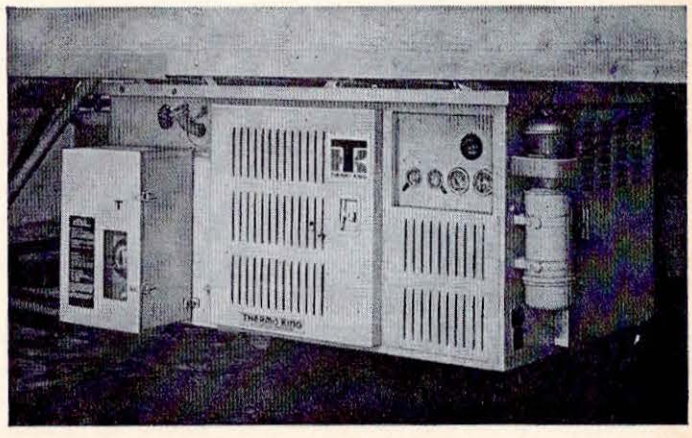

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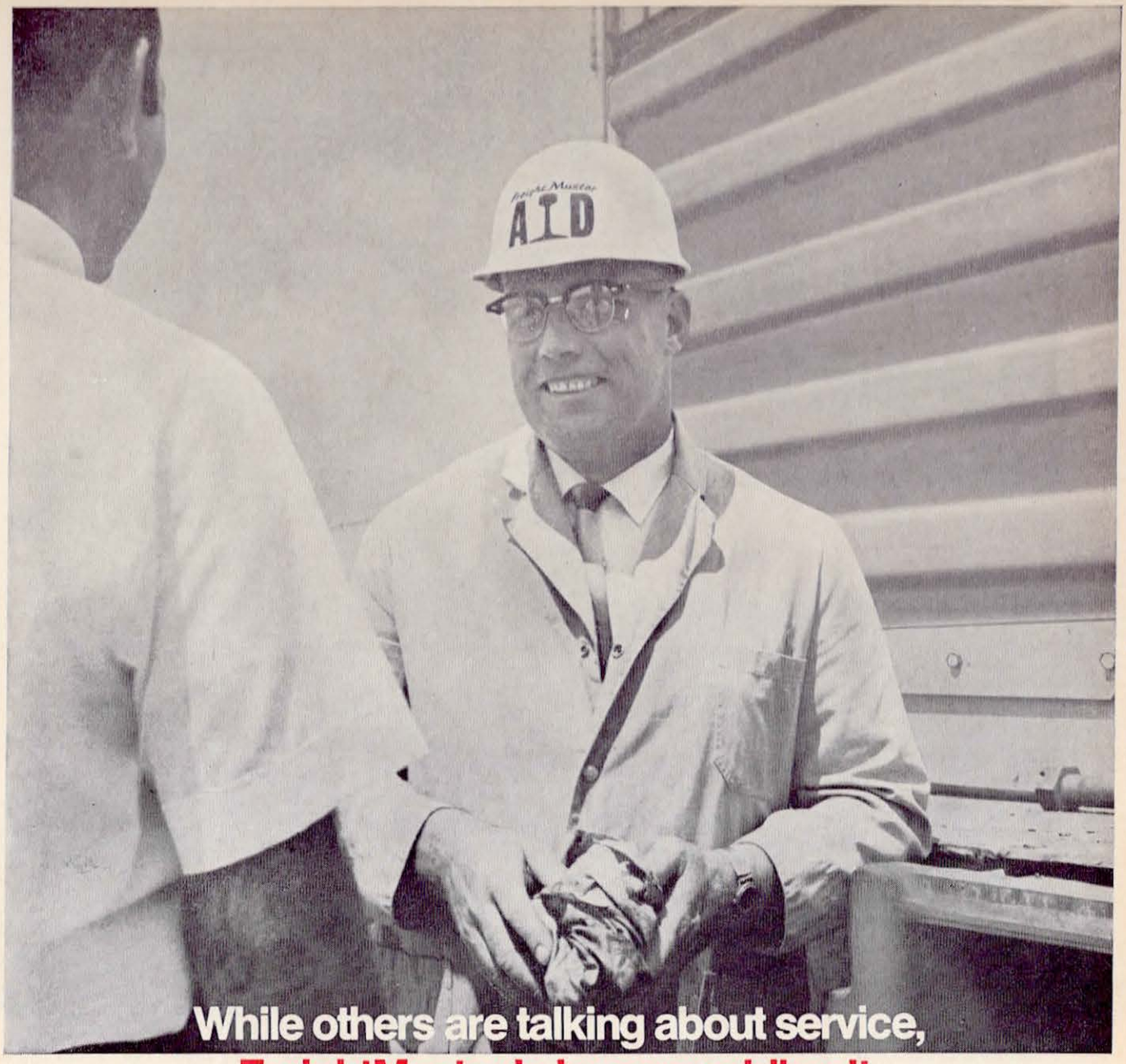

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RAILWAY AGE

February 23, 1970 • Vol. 168, No. 3

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Railway Age, established in 1856, is indexed by the Business Periodicals Index, the Engineering Index Service and the Public Affairs Information Service. Name registered in U.S. Patent Office and Trade Mark Office in Canada.
Published semi-monthly by the Simmons-Boardman Publishing Corporation, 508 Birch St., Bristol, Conn. 06010.
Railroad employees' subscription rate, U.S. possessions, Canada and Mexico, $6 one year, $9 two years, all others $15 for one year, payable in advance and postage paid. To railroad employees elsewhere in the western hemisphere, $10 a year; in the eastern hemisphere, $15 a year. Single copies 60¢, except special issues.
Address all subscriptions, change of address and correspondence concerning them to Subscription Dept., Railway Age, P.O. Box 530, Bristol, Conn. 06010.
Change of address should reach us three weeks in advance of next issue date. Send old address with new enclosing, if possible, your address label. Post Office will not forward copies unless you provide extra postage.

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Circulation Dept.: John Rogers Director of Circulation, 30 Church St., New York, N.Y. 10007. POSTMASTER—SEND FORM 3579 TO P.O. BOX 530, BRISTOL, CONN. 06010.
Printed at the Hughes Printing Co., 34 North Crystal St., East Stroudsburg, Pa. 18301. Second-class postage paid at Bristol, Conn., and at additional mailing offices.

Inside

LUTHER MILLER

WHAT'S RIGHT WITH RAILROADS

"Isn't there a shipper anywhere with a kind word for railroads?"

The question was tossed out during a recent story-planning conference of Railway Age editors. It quickly led to a staff memo which posed other questions: "What's *right* with railroads? What is it that keeps railroads racking up new ton-mile records every year despite persistent reports that they are dying? Can we search out some satisfied customers, and find out why they stick with railroads—and what railroads must do to keep them happy?"

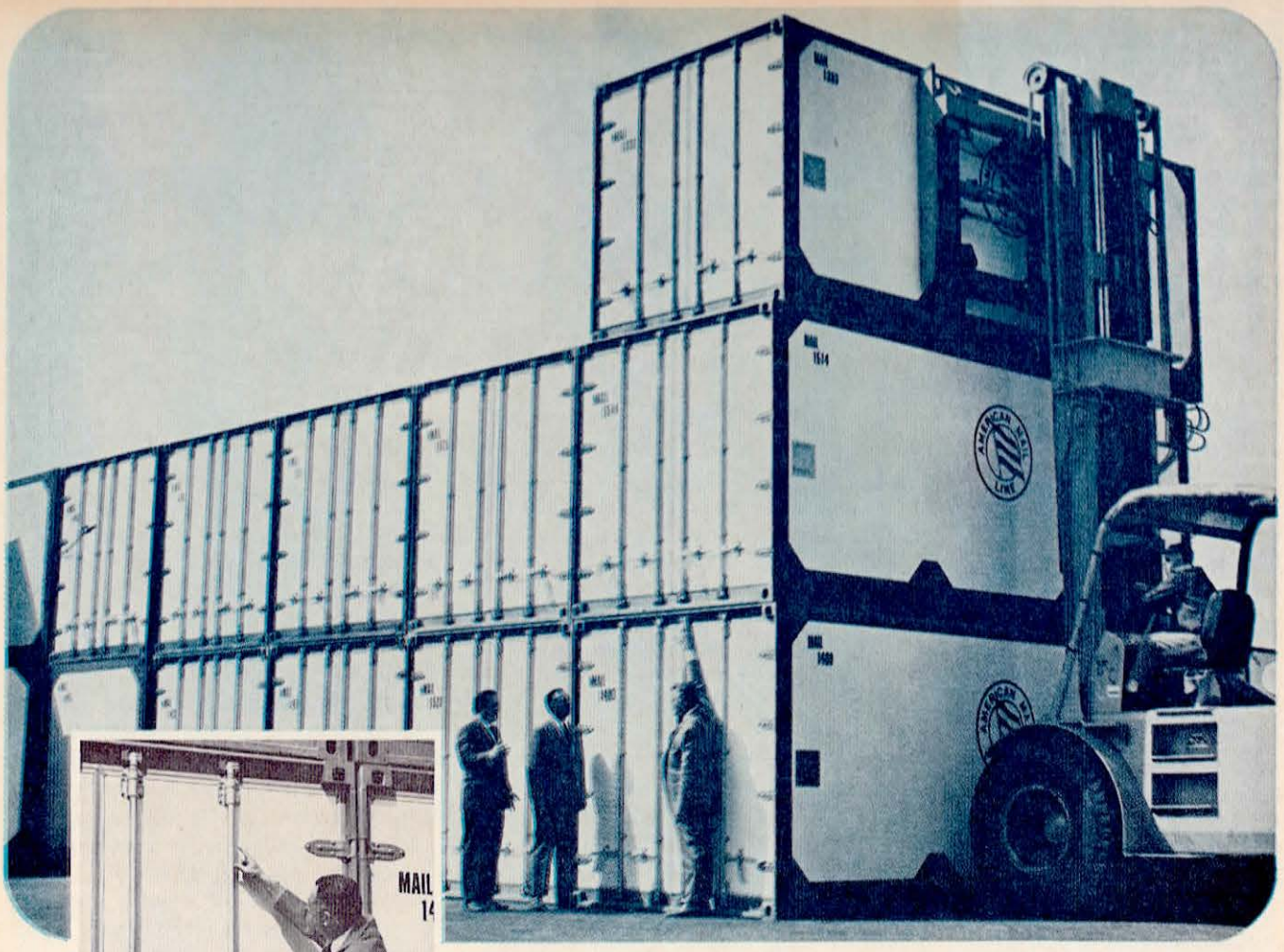
We hoped to find 12 shippers for a year-long series. We found 135—and the list is growing. One of them, Kimberly-Clark, is featured in this week's issue (p. 31). What Associate Editor Bob Bartley wrote after his visit with the K-C people at Neenah, Wis., is not the kind of story you are likely to read in those publications which see railroads only as the bumbling guardians of up-tight commuters and nervous old ladies. Which is why you will find it in Railway Age. Telling what's right (as well as what's wrong) with railroads has been our business for 114 years.

TOMORROW'S RAILROADS—AND TODAY'S

"Excellence in corporate reporting"

This week's story on the Southern (p. 59) is not formally a part of Gus Welty's latest "Tomorrow's Railroads" installment (p. 25), but it could well be. Because who is further along on the road to tomorrow than this remarkable maverick?

To get the story, we wanted to interview not only Southern's president but his top aides as well. The logistics of this complicated operation were worked out with the help of Bill Geeslin, SR's p.r. chief. So . . . on a recent afternoon the men who run Southern filed into Delmonico's Restaurant in New York; split up into two private rooms, each of which was equipped with a tape recorder and two representatives from Railway Age; and started talking. From the resulting 100-odd pages of transcript emerged this week's "Management Close-up." P.S.: The Southerners went straight on to a session with New York analysts, where President W. Graham Claytor, Jr. was presented an award from the Financial Analysts Federation for "Excellence in Corporate Reporting." Shearson Hammill's Isabel H. Benham did the honors (see cut). All in all, a fine day for Southern, for the financial analysts—and, we hope you'll agree, for excellence in corporate reporting.



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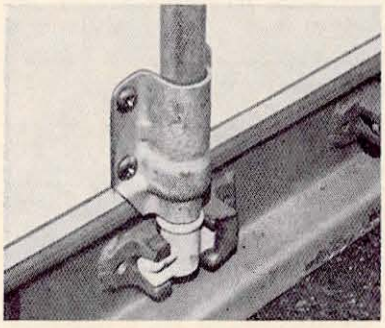

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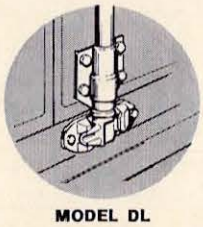

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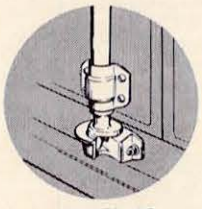

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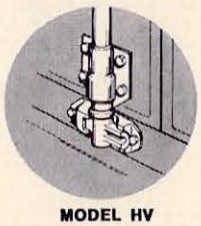

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RAILWAY AGE

FEBRUARY 23, 1970

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	Federal funds for safety R&D? A $62-million program is under study	p.46
FREIGHT TRAFFIC	Chicago study aims at improving movement through terminals	p.11
	Cargill and IC give Rent-A-Train a year's renewal	p.12
	For industrial traffic men, the '70s may be a time of troubles	p.54
PASSENGER SERVICE	The ICC relents—and WP will be able to drop the "Cal Zephyr"	p.11
	Who poxed Railpax? Not I, Budget Director Mayo tells RA	p.12
TECHNOLOGY	Bethlehem uses a new technique in bridge-building for KCS	p.12
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Short and Significant

GOVERNMENT

RATE INCREASE: WHEN—AND HOW MUCH?

Doubt remains, as to the timing, the amount and the base on which railroads will again be going before the ICC for a freight-rate increase. Among the imponderables: (1) How much will railroads have to pay, when current wage cases are settled? (2) How much will the Teamsters pry loose from the motor-carrier industry? (3) What will further market analyses show, regarding the effects of another across-the-board increase as compared with selective boosts? About all that seems certain is that there will be an increase proposed. As one chief executive puts it, "The meter is running."

WHICH IS THE LOW-COST CARRIER?

Truckers want the ICC to continue to use "fully-distributed costs" as the basis for determining which of competing modes is the low-cost carrier. But they don't want "public costs" (e.g., government investment in transportation facilities) to be considered. In a statement filed with the ICC in a rule-making proceeding, American Trucking Associations argues that "so-called public costs have no significance or relevancy in the Commission's determination as to which mode possesses the inherent cost advantage, in a competitive situation."

BIG-TRUCK HOPES FADE

Chances of Congress' passing a bill allowing bigger trucks are getting smaller. Opposition from the Department of Transportation, auto and civic groups, and some (though not all) railroads, will probably keep the bill in a House subcommittee where it has been since hearings ended last July.

LABOR

NOW, A WORD FROM THE BLE

While railroads and the United Transportation Union are in super-mediation on the fireman-manning issue, another conflict may be shaping up in the locomotive cab. The Brotherhood of Locomotive Engineers is in with notices saying this: "Locomotive engineers and motormen . . . will not be required to operate any locomotive or other unit of motive power without an assistant engineer."

ABA STRIKE PLAN UP FOR DECISION

The American Bar Association's House of Delegates will take a new look this week at a special committee's proposal for preventing national or regional strikes in transportation. First step in the proposal would be for the parties themselves (with help from public representatives) to work out new bargaining procedures. If they failed, then the plan contemplates legislation to give the President various options—ranging from total non-intervention to the imposition of compulsory arbitration or executive receivership which would last until a settlement is reached.

LABOR, AND THE BIG BOXES

Containerization brings labor problems. They'll be discussed in Chicago April 14-17, at a workshop session as part of the Fifth International Container Services and Equipment Exposition. On hand: Labor Secretary George P. Shultz and United Transportation Union President Charles Luna.

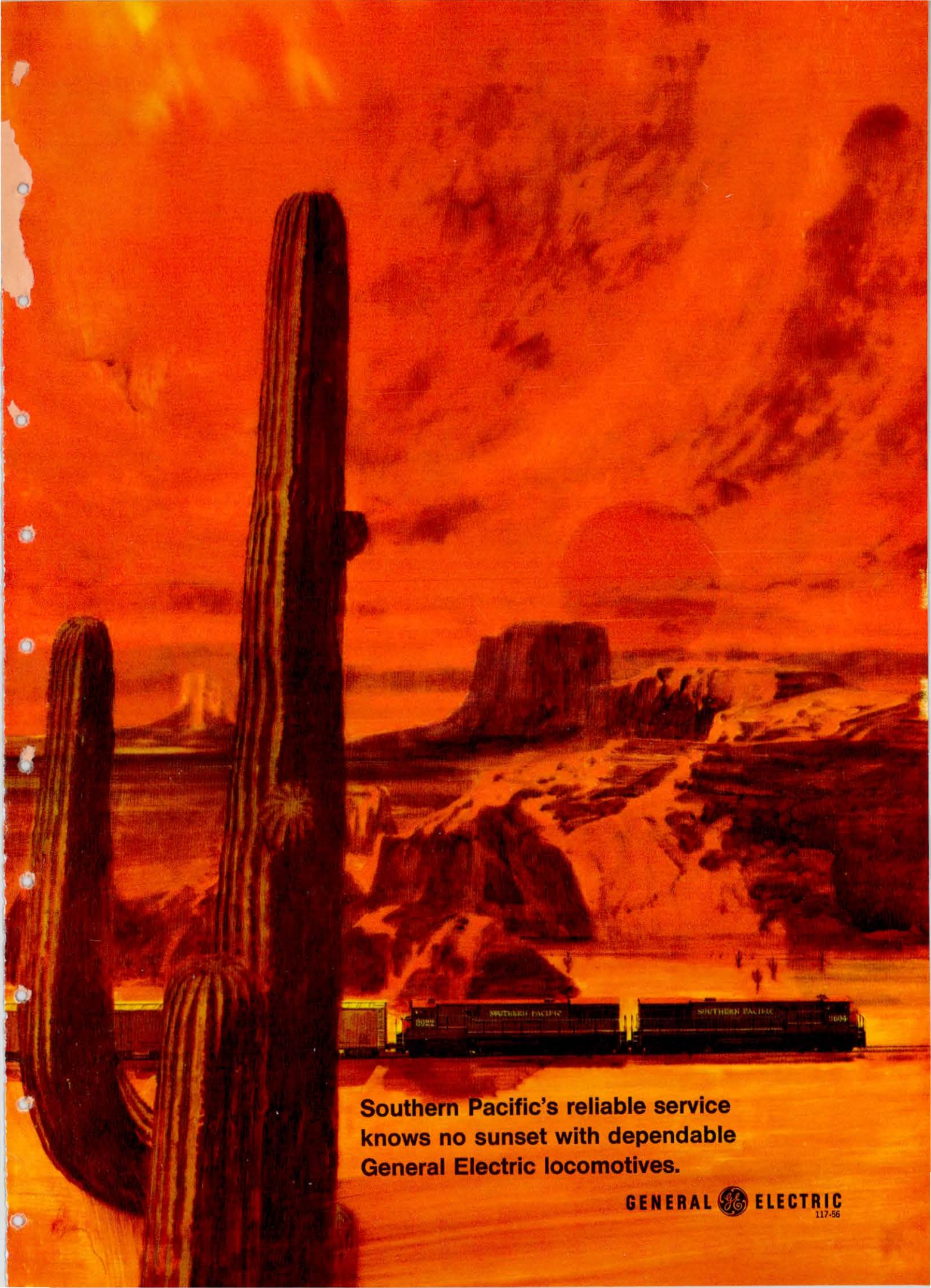
TECHNOLOGY

ACCEPTANCE OF ACI SPREADS

ACI isn't only for railroads. It's also for big users of railroad service. Evidence of this? Big railroad users are starting to show an interest in having their own automatic car identification systems. Ten scanners have already been purchased by private industry—principally by mining companies. Auto and petroleum companies are also considering use of ACI systems to scan cars entering and leaving their plants. Meanwhile, railroads are still working toward a mid-summer deadline for having the freight-car fleet ACI-labeled.

FOR LIRR, 1,000-MILE TESTS

Long Island, plagued by problems arising from its new equipment as well as from its old, will accept no more cars from Budd "that haven't been run on our property for 1,000 miles," says Dr. William J. Ronan, chairman of the Metropolitan Transportation Authority which operates the former LIRR.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If you're like most businessmen, you're probably all too aware of the technician shortage. If current projections are right, one out of three new technical jobs won't have any applicants.

The National Industrial Conference Board and The Advertising Council are concerned about the shortage, too. As a public service, they've prepared a full-scale advertising campaign to get young people to take up technical careers.

You can help. You can distribute a new guide to technical careers to schools, church groups, youth clubs—wherever young people gather in your town. And you can put up a "Be-a-Technician" poster wherever young people can see it.

For samples of the guide and the poster and information on quantity reprints, use the coupon below. Samples are free. Reprints are cheap. Only $4.00 per hundred for the poster. $5.00 per hundred for the guide. For a small additional charge, we can even imprint your company's name.

A small price to pay today for a good supply of technicians tomorrow.

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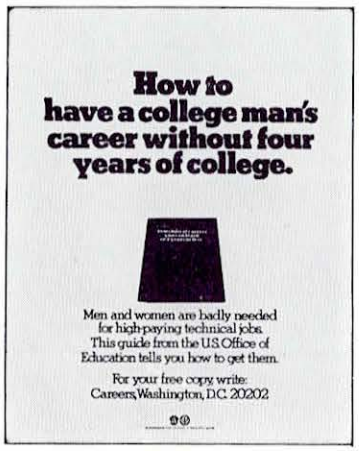
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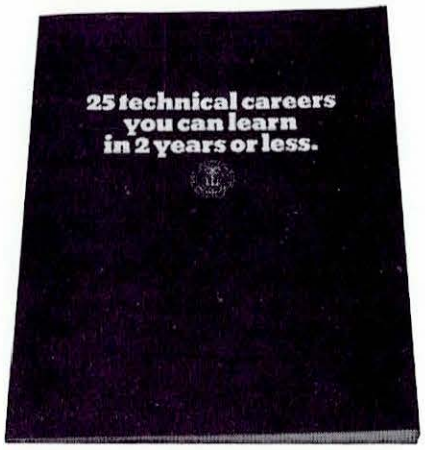

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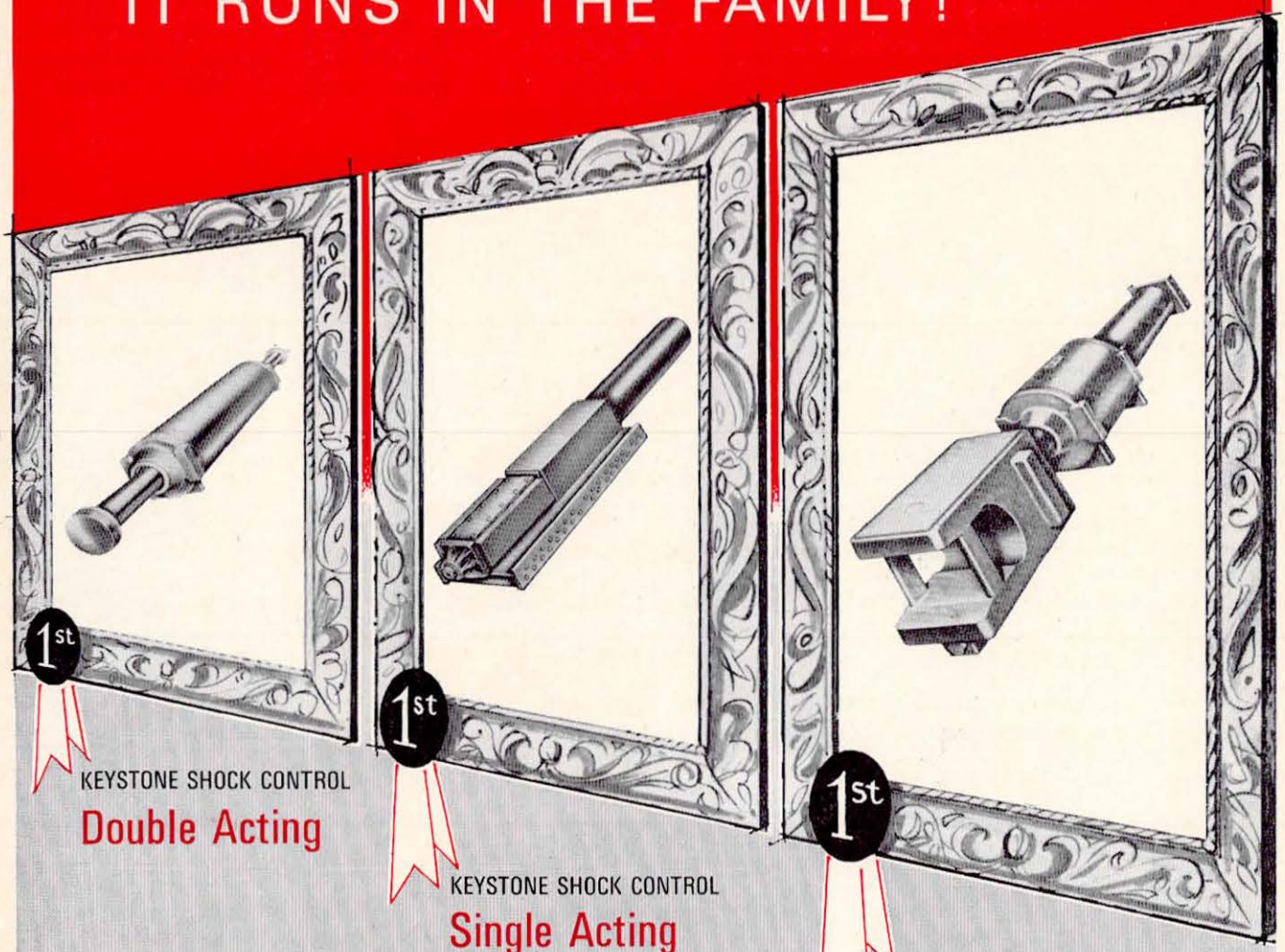

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THE 2-IN-1 GEAR

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The H-60 has the equivalent energy absorbing capacity of *two* Mark 50 gears. This remarkable achievement in the science of draft gear engineering is accomplished by the addition of a hydraulic booster unit to the normal spring complement. The powerful hydraulic unit supplements the spring resistance to produce the multiplication of total draft gear capacity.

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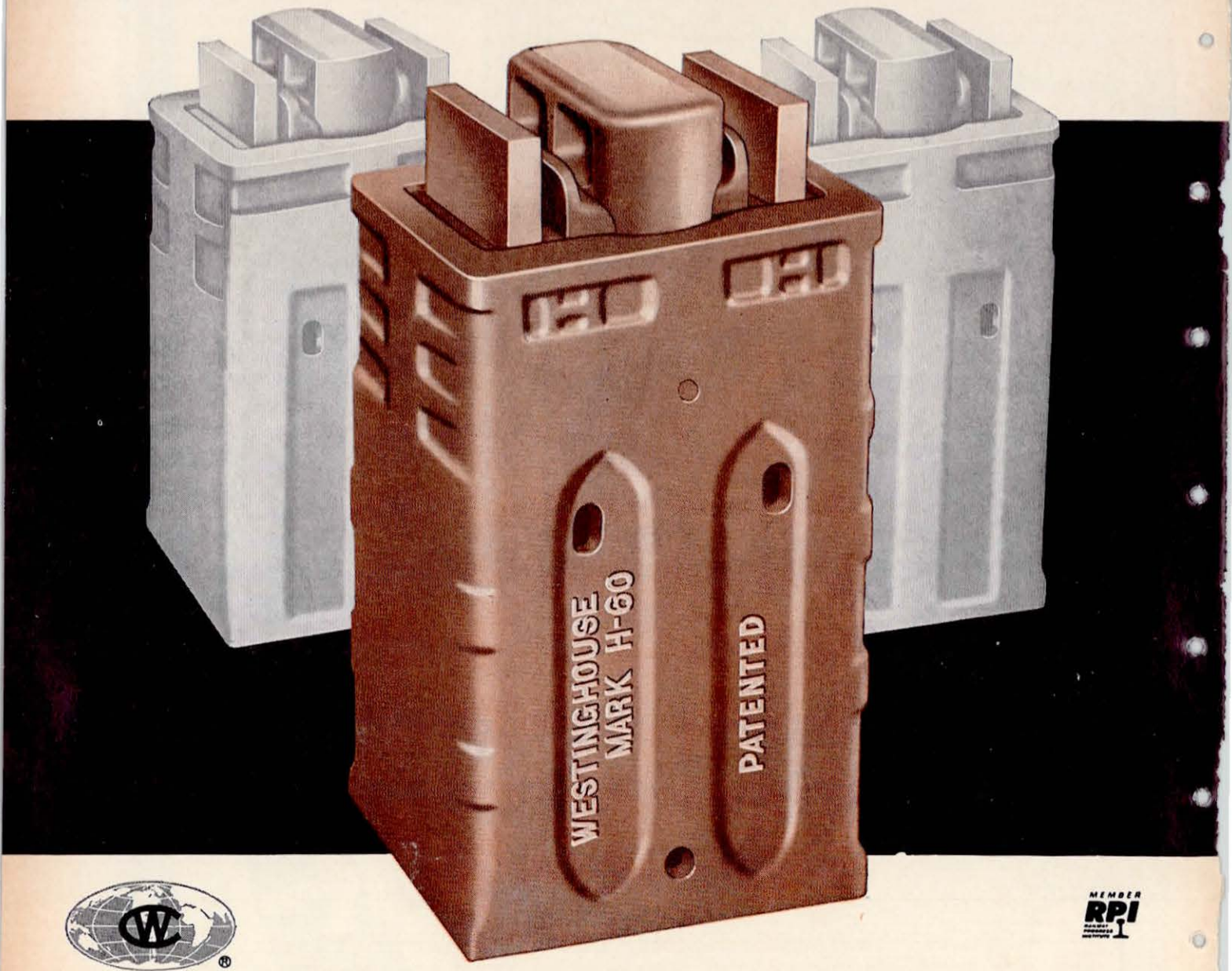

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Circle 7 on coupon page 69

RAILWAY AGE NEWS

Chicago roads plan car-movement study

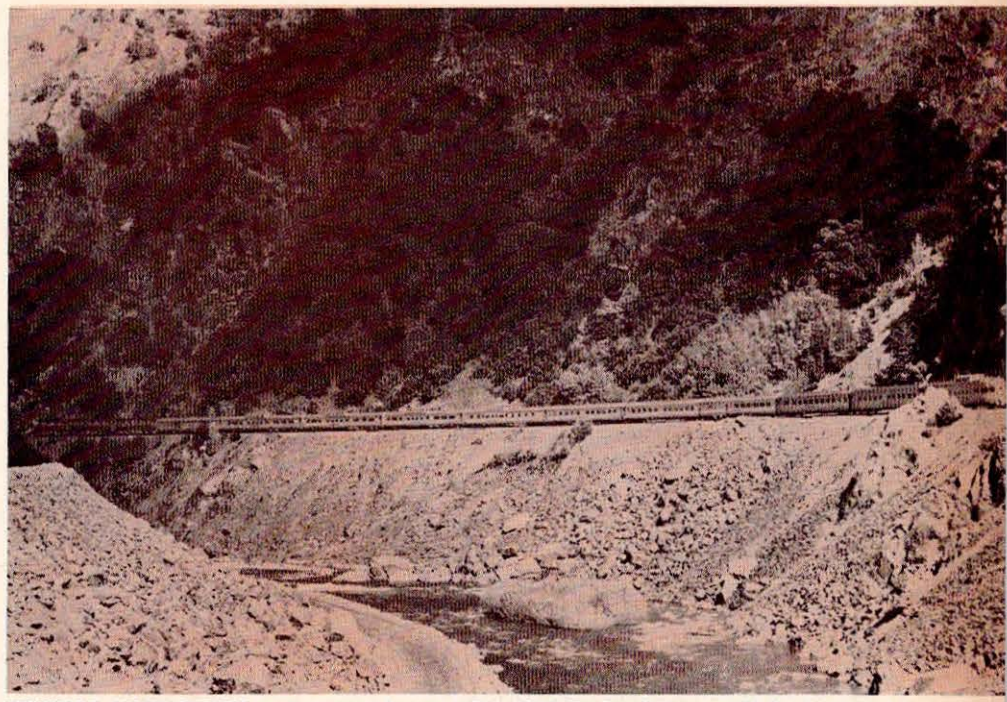
Beginning in about mid-March and continuing for a 96-hour period, railroads in the Chicago Terminal District will be focusing much attention on "Operation: Snapshot." A cooperative venture of the AAR and Chicago's General Managers Association, this district-wide study is being conducted to learn what does, in fact, happen to a freight car in the four-day period after it enters the 1,750-square-mile terminal area around Chicago.

The goal is to gain an over-all picture of traffic activities within the terminal area in a given period. Each of the 23 railroads in the GMA, plus a handful of industrial roads operating in the Chicago area, is forming a special task force of its own to maintain a constant surveillance at key points to determine the movements of cars—both loaded and empty. To simplify the entire project, only those cars whose numbers end in either 10 or 55 are being recorded for subsequent entry into the computer analysis.

After data is analyzed, recommendations based on the study may be made, to improve traffic flow. A follow-up "Operation: Snapshot" will check improvement.

Emergency aid for N.Y. commuters?

Openly concerned over the worsening plight of commuters (and privately worried over what this could mean to his own chances for re-election), New York Gov. Nelson Rockefeller is proposing emergency loans totaling $30.7 million to help rail, subway and bus lines catch up on deferred maintenance. Subways would get $10.4 million; the state-owned Long Island, $5.5 million; Penn Central's Harlem and Hudson divisions, $7.3 million; PC's New Haven division, $1.05 million; Erie Lackawanna, $500,000; upstate bus lines, $6 million. Political critics have called Rockefeller's plan everything from an "eyedropper" approach to an "election-year charade."



TOURIST ATTRACTION and money loser, WP's "Cal Zephyr" soon will be no more.

The ICC relents—CZ will come off

The "California Zephyr" has been described in many ways— as a "unique national asset," as a veritable wonder of the transportation world, as a train with scenery second to none. And, as a millstone around the neck of at least one of its operators, Western Pacific.

Perhaps there was no popping of champagne corks last week—but there were no tears being shed either—as WP learned that, finally, it will be permitted to drop the CZ and thus eliminate its last remaining passenger service.

The ICC order in the CZ case carried its own set of complications. WP can become freight-only. Rio Grande, which had also petitioned to discontinue the CZ, got half a loaf: The Commission said Rio Grande must maintain three-times-a-week service west of Denver and must arrange a connection with Southern Pacific to maintain Chicago-San Francisco service on what will now be a Burlington-Milwaukee-Union Pacific-D&RGW-SP pair of routes.

If that sounds complicated, it is. Meetings were in progress last week, as the various roads involved tried to sort out the threads of the order. Apparently, Milwaukee/Union Pacific will continue to operate as they have, Chicago-Ogden. Burlington will provide a Chicago-Denver service which D&RGW will continue on three days a week. Southern Pacific, loss-plagued on its "City of San Francisco" operation, will be able to cut back to a three-times-a-week service which will handle Burlington/Rio Grande and Milwaukee/UP cars between Utah and California.

For Western Pacific, in particular, the ICC order must be both sweet and bittersweet. WP has made repeated efforts to drop the train. Each time until now, the Commission has said "Keep trying," and has added suggestions as to how WP might get help. Most of the suggestions were explored. None paid off. In 1969, WP—normally a profitable railroad—came to the end of the line on CZ. WP's preliminary report for last year showed a loss of more than $700,000. A major cause was the "staggering loss from the enforced operation" of the CZ. The ICC's belated epitaph: CZ was really "primarily a sight-seeing excursion." WP, for one, had been saying precisely this for a long time.

NEWS

Who poxed Railpax? Not I, says Mayo

Robert P. Mayo, director of the Bureau of the Budget, is widely believed to be the man who derailed Railpax, DOT's plan for a quasi-public corporation to keep essential passenger trains running. Not so, Mayo told Railway Age Washington Editor Frank Malone last week.

In an exclusive interview, Mayo said that "there were several agencies that had quite serious objections to Railpax." Railpax remains somewhere in the White House pipeline. "I don't know where it stands now," said Mayo. He noted that Railpax is not the only avenue being explored by the Administration.

What does Mayo himself think about the future of passenger trains (Metroliner service excluded)? "If you do indeed solve the public mass-transit problem and the commuter rail problem, I remain to be convinced that the rest of rail passenger service is really worth saving," said Mayo. He recalled some rides on long-distance trains and commented, "I really was lonesome."

He emphasized that this was a personal opinion and that he "tried not to let that color what we put into Railpax. Naturally, we don't want to spend money. But if I thought so small an amount of money had the leverage to provide a permanent solution, I'd give my support for it." He summed up his feelings on the rail-passenger situation with these words: "I find the whole thing pretty much of a mess."

On railroads generally, Mayo said the industry's loss of political influence in the last two decades does not justify an inferiority complex with respect either to the Administration or to Capitol Hill.

"It's still a great, proud industry in the eyes of many politicians. But there is something to be said for the notion that railroads don't toot their own whistle long enough on the real issue —their importance to the nation beyond passenger trains," said Mayo.

Mayo's own importance to the railroad industry—and to any industry which is seeking dollar help in Washington—emerged clearly in the interview. But that importance, he suggested, should not be over-emphasized.

As watchdog of the national purse, the Bureau of the Budget often gets blamed for blocking programs supported by other government agencies and by private interests. But, said Mayo, the blame is not always deserved. Contrary to what many people seem to think (including some within the Administration), "the decision is not made here," he told Railway Age.

DIRECTOR MAYO—a power in the capital.

There is a sort of unwritten but understood (around Washington, at least) principle that the Bureau is expected to operate as a buffer for the White House. But it is from the White House, and the President's inner circle, that the final word comes, even though BOB may get the job of spreading that word.

"Once we've done all our input of coordinating agency views, the thing narrows to the decision of the President along with the White House advisors," said Mayo. From then on, the BOB director may or may not be called in.

The function of BOB, said its director, is that of a clearinghouse for views of government agencies. This includes not only the agency that originates the proposal but any other affected agency.

"We have to make a decision on who needs to know about an agency's proposal," Mayo said. BOB then collects related views and prepares its own input, "our letter to the President that encompasses the various opinions." Included, of course, is the opinion of the Bureau itself.

"Once these things get past that stage, I lose track of them," said Mayo.

Past that stage is where Railpax is today.

Rent-A-Train gets new lease on life

The first "year" of Illinois Central's Rent-A-Train operation actually lasted 15 months. But IC and the train-renter, Cargill, Inc., figure that past woes are past woes—and Cargill has given its OK for a second year of R-A-T.

Neither IC nor Cargill makes any attempt to minimize the first year's problems. As IC Vice President-Marketing John W. Ingram points out, "We seemed to be under a hex right from the start." The train derailed twice on its inaugural run. Weather conditions made rerouting necessary on several occasions. Operations had to be suspended during last year's Gulf longshoremen's strike, and after a fire at Cargill's inland export terminal. Equipment maintenance was an unexpected problem.

The net result of all this was that the first one-year contract on R-A-T took 15 months to fulfill. But, Ingram says:

"The concept is sound, and the economics are right for both the railroad and the shipper. Our performance —when you get past the goofs, derailments and strikes—was precisely what Cargill needs to have for over-all capacity and scheduling efficiencies they can generate."

During Rent-A-Train Year 1, the 115-car train made 57 trips and carried more than 22 million bushels of grain from origin points in Illinois to Gulf ports.

R-A-T also played a part in improving car supply. Its operation, Cargill says, "appreciably relieved the chronic box-car shortage in the Illinois grain belt." IC's Ingram agrees: "Equipment shortages in the area would have been much more severe if Cargill's Rent-A-Train hadn't been steadily reducing the size of the pile of grain that needed to be moved in central Illinois."

National transport policy: What is it?

Railroad people have had mixed reactions to the series of "public transportation" conferences which the former Brotherhood of Railroad Trainmen

sponsored in past years. This year, the reactions may be even more mixed—but the United Transportation Union (successor to BRT via merger) does have a blockbuster topic: "What Should a National Transportation Policy Contain?" Past conferences have been primarily concerned with urban transit.

UTU's conference will be held at the University of Chicago, April 23-25. Two keynote speakers are scheduled—Maj. Gen. John P. Doyle (ret.), chief of the investigating group which prepared the so-called Doyle Report on transportation for the Senate Commerce Committee in 1961 and now holder of the McDonald Chair of Transportation at Texas A&M; and Dr. Paul W. Cherington, former assistant secretary of transportation and now James J. Hill Professor of Transportation at Harvard.

At the most recent count, 16 papers were being prepared for pre-conference distribution.

REA's new tack: Localized service

REA Express is revamping its operations into 12 regions in a move designed to improve service to shippers through strengthened local supervision of operations. President Spencer D. Moseley says the 12 regions, each comprising from three to seven states, "will be more closely oriented to the needs of the local area, and will permit tighter control."

Daley pleads again for new land uses

It's been no secret, that Chicago Mayor Richard J. Daley casts a covetous eye at downtown-area railroad property as prime land for residential/commercial/civic redevelopment. He's long been an advocate of passenger-terminal consolidation, for example, and of redevelopment of property—mostly south of Chicago's Loop—which would be freed-up via consolidation. Most of the mayor's past advocacy, however, has been expressed at home. Now, he's taken his proposals to Washington—through an appearance before the House Banking Committee, in which he asked that federal aid be provided to help cities build on railroad property no longer required for rail operations. Daley also proposed a federal-grant program which could be used for inner-city development on air rights over rail, highway and waterway routes. Chicago's mayor told the committee that "almost every city of any size has large open areas that contain railroad yards and rail storage facilities that are obsolete and uneconomic. The uses of such railroad rights-of-way for new housing offer an immediate opportunity of increasing the supply of decent shelter in many of the existing inner-city neighborhoods, with little or no displacement of residents. . . . Another possibility is the use of air-rights developments over expressways, railroads and in some instances waterways, which cut through many of the nation's inner-city neighborhoods. The utilization of platforms over such rights-of-way could substantially expand the supply of housing without the upheaval caused by relocation."

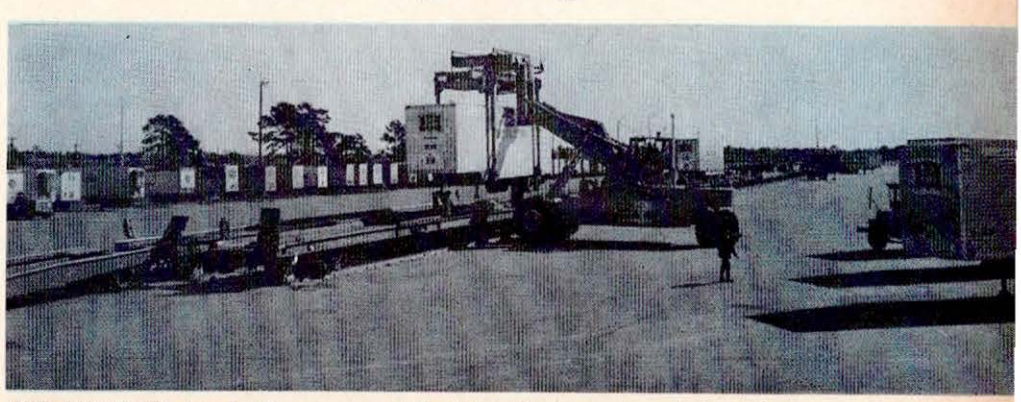
Meanwhile, Chicago terminal consolidation is moving ahead—with one station closed and planning under way to end operations at a second.

Autobiography for the tank-car industry

Over the next couple of weeks, more than 1,000 key railroad officers and industrial traffic managers will be getting a new volume for their transportation libraries. Title of the booklet is "The Modern Tank Car." Authors are the members of RPI's year-old tank car committee. And their purpose? As a committee spokesman puts it, "We want to spread some understanding about a much-misunderstood industry." There's a strong historical flavor to the booklet, as the committee traces development of the industry, its equipment and its operations over the past century. But there's also a strong flavor of the future—with emphasis on research, on testing, on product improvement generally. Participating in preparation of the industry autobiography were representatives of the major tank-car lessors on the RPI committee—ACF Industries, Shippers Car Line Division; General American; North American Car; Transport Leasing, Division of Pullman Inc.; and Union Tank Car, subsidiary of Trans Union.

Piggyback is booming—and Rock Island is growing with it

Piggyback shippers and receivers in the Houston area are getting improved service from Rock Island—thanks to the opening of a $1-million piggyback terminal adjacent to RI's main line and away from city traffic congestion. The four-track facility (two loading/unloading tracks and two storage tracks) will be serving a growing market in a growing service: RI piggyback revenues have climbed from $19 million in 1967 to $25.7 million in '68 to $31 million last year. Loading/unloading at Houston will be handled by a 90,000-pound-lift-capacity Piggy Packer.



THE MACHINE dwarfs the man, as RI's Piggy Packer swings into action.

NEWS

WITHOUT HEAVY CRANES or false piers, KCS bridge takes shape over Arkansas River.

Bethlehem "launches" a bridge for KCS

Bethlehem Steel ironworkers are using what's described as a unique construction method to provide Kansas City Southern with a new single-track bridge across the Arkansas River at Redland, Okla. In effect, bridge sections are being "launched" from the abutments at each end of the structure. A 200-hp hoisting engine pulls the sections into place, and makes unnecessary the use of falsework piers or heavy cranes and derricks. The erection method worked this way: Box girder sections were shop-welded at Bethlehem's Leetsdale, Pa., plant and moved by barge and rail to the construction site. There, sections were joined together with high-strength bolts. When enough sections were bolted together to achieve the desired counterbalance effect, the launch began. A specially-designed launch-rail system welded to the bottom of the box girder eased the first launch, from the abutment to the first pier; a 60-foot nose truss was temporarily bolted to the front of the box to guide the superstructure to the piers.

The nine-span, 2,110-foot box girder structure—built of weathering steel—will replace a 24-span truss and plate girder bridge which became a victim of the Corps of Engineers' Arkansas River navigation project. With its low clearance and numerous piers, the old structure was deemed a hazard to movement of barge traffic. The new bridge will cost about $4.5 million—and will be financed by the Corps. Completion of the project is scheduled for next autumn.

KCS' selection of box girder design came after detailed analysis of box girder vs conventional truss and plate girder. Consulting engineers estimated that the box girder structure could be erected at a savings of more than $500,000. In addition, there are savings in substructure costs: With high-strength steel used throughout, only eight piers are needed, 12 fewer than would be required for a conventional structure. KCS also saw advantages in the fact that with box girder design, there are no load-carrying members of the superstructure above top of rail—an important consideration in case of a derailment on the bridge.

Rohr shop ready—ahead of schedule

There shouldn't be any delay in the start of construction of the 250 transit cars for the San Francisco Bay Area Rapid Transit System (BART). Rohr Corp., the successful bidder for the $66.7-million car order, announced a new 137,000-square-foot building for transit car construction operations was completed early this month at its Chula Vista, Calif., plant—a full two weeks ahead of schedule.

Large enough to hold two giant Boeing 747 superjets with room to spare, the 300-by-450-foot structure is equipped with four 50-ton overhead cranes for handling BART car components, some of which are 70 feet long. Also, it is fitted with six motorized sliding doors, each 50 by 50 feet to permit the large vehicles to be moved in and out with ease.

The first 10 cars in the order are scheduled for delivery later this year to BART for evaluation. By April 1971, Rohr expects to be in full production in its new building.

Riders switch to new rail line

The Lindenwold (N. J.)-Philadelphia High Speed Line observed its first birthday Feb. 15 amid considerable pointing-with-pride by those who contend that good train service will lure commuters off the highways and back to trains.

Starting out with 17,000 riders a day one year ago, the line now hauls 30,000. It attracted 6 million paying customers in its first year of operation; 8-9 million are forecast for the second.

The 14-mile line provides 22-minute service. One indication of its ability to decongest highways: the 5,600 parking spaces originally provided at six New Jersey stations quickly reached capacity. An extra 1,000 spaces were put in last fall, and 2,222 more have been authorized.

FORD CONTAINER from England is eased from CN/GTW car at new Windsor gate.

New gateway tested for container moves

For more than a year, Ford Motor has been shipping tractor engines via container from England through Canada to an assembly plant near Detroit—but now, Ford and Canadian National/Grand Trunk Western are testing moves through a different gateway in order to speed up service and cut transit time.

Past movements went via ship from Manchester, England, to Montreal and then via rail to the Sarnia-Port Huron gateway. The tests—involving eight containers, initially—route the rail movement via the Detroit-Windsor gateway. Containers are transferred at Windsor from flatcar to motor-carrier bogie for truck movement across the Detroit River and on to Ford's Highland Park tractor plant.

Health/welfare "crisis" not coming

Negotiations are continuing between the nation's railroads and rail labor organizations on a new health/welfare package. But even if no agreement is reached by Feb. 28—policy expiration date—coverage will be continued on a day-to-day basis.

Fears of a rail tieup had been raised recently, when labor spokesmen indicated their men would not be working if coverage ended.

Car orders high, estimate went awry

The "estimating" business took a beating in 1969—at least where the freight-car order estimates of the American Railway Car Institute are concerned. Final figures on '69 orders and deliveries and on the Jan. 1 backlog all varied widely from projected figures cited by ARCI early in December. For the record, new-car deliveries were 7.3% above the estimate, orders were higher by 17.4%, and the year-beginning backlog was 21% greater than ARCI's forecast. By one key measurement—orders placed for new freight cars—last year turned out to be the third-best of the '60s. The actual order total: 84,345 cars.

Both commercial carbuilders and railroad shops showed order increases, 1968 to '69. Carbuilders received orders for 49,386 new cars in '68 and for 65,401 last year. Railroad-shop orders climbed from 14,170 to 18,944. And the backlog of cars ordered but not delivered was up by almost 50%, from 31,735 on Jan. 1, 1969, to 46,751 on Jan. 1, 1970.

Lines on Labor

GUS WELTY

WHAT ROLE FOR GOVERNMENT?

There we were—as—diverse a panel as you might want to assemble to discuss something as complicated as government's relationship to labor/management affairs. There was the president of a major union, the personnel and industrial relations vice president of a diversified manufacturing company, the assistant director of mediation activity for the Federal Mediation and Conciliation Service—and this reporter, whose assignment was to assess the public's view of government's role. Out front were 1,200-plus personnel and labor-relations people, signed up for the American Management Association's annual personnel conference. It's hard to say what the 1,200-plus learned from the discussion—except, perhaps, that all four panelists are worried, though not necessarily about the same things. O, thus be it ever. . .

THE "HANDS-OFF" POLICY: WILL IT WORK?

The panel did agree that Secretary of Labor Shultz deserves a round of applause for advocating a non-intervention policy —one designed to make labor and management settle their own problems. The panel didn't exactly agree that such a policy will work in all cases.

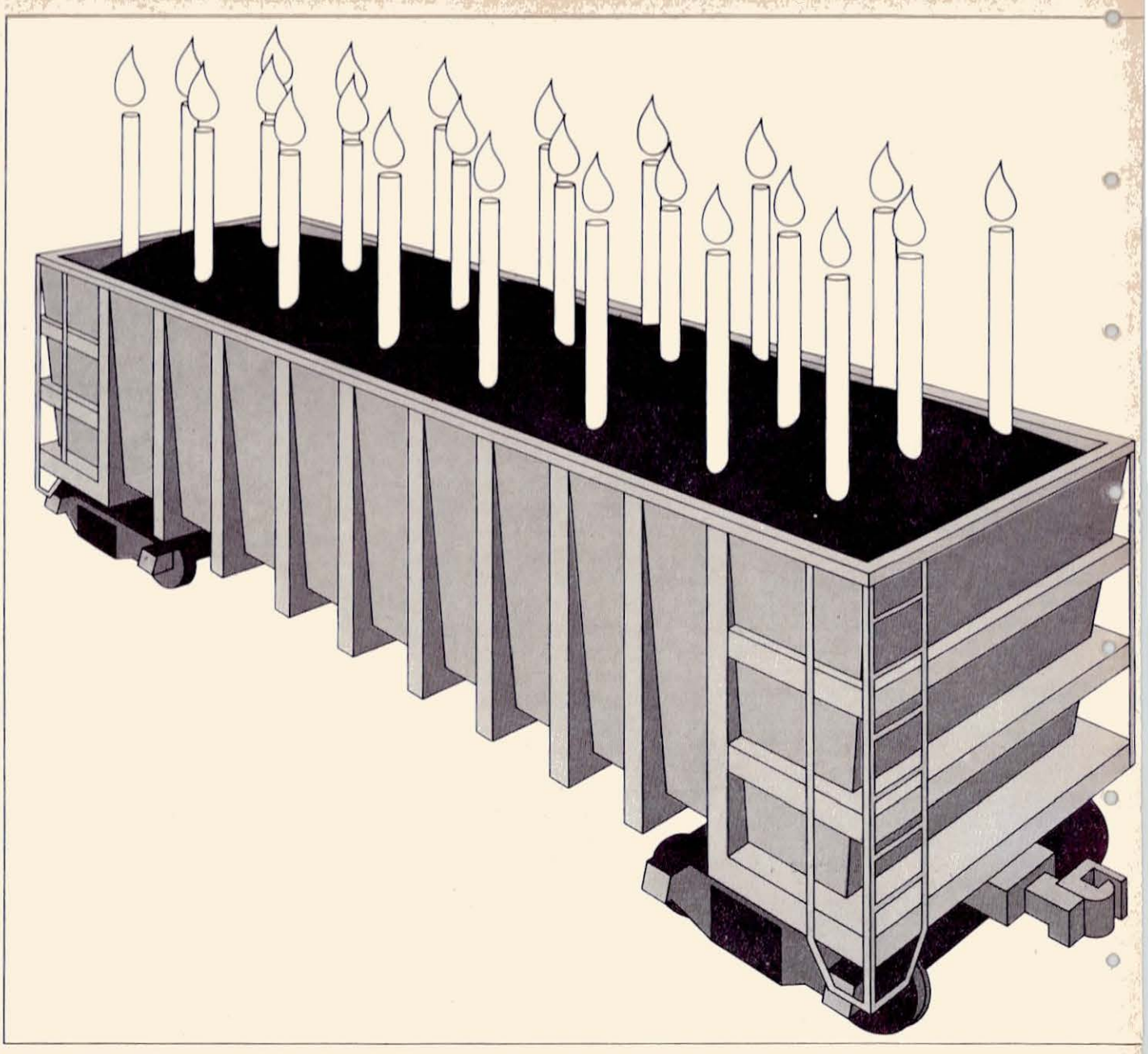
The panelist assigned to the public sector pointed out, for example, that twice during the 1960s government had been forced into the ultimate in intervention, namely legislation to impose arbitration in rail labor disputes.

Another point might be made. Despite talk of a "new federalism" and decentralization of government activity, the public may be getting accustomed to greater, not lesser, government involvement on a wide front. Government is taking charge in such areas as environmental control, in consumer protection, in law-and-order matters. Laudable as a hands-off policy may be in labor/management affairs, there quite possibly will be times when it will not work, if the public is to be protected.

CHAOS, COMPULSION—WHAT WILL IT BE?

At the close of the discussion and a spirited Q&A period, there was of course a summation—with the related observations that (1) a society without self-discipline is headed for chaos, and (2) faced with a choice between chaos and compulsion, society will opt for compulsion.

In many labor/management situations—perhaps in most—it is difficult, now, to build a sufficient case for coercion or compulsion. But in certain public-service areas, it's difficult *not* to build a case for compulsion—if that's the only way to prevent work stoppages. Does transportation qualify as one of these public-service areas? Think about what would happen on the day the trains stop running—and on the next day and on the day after that.



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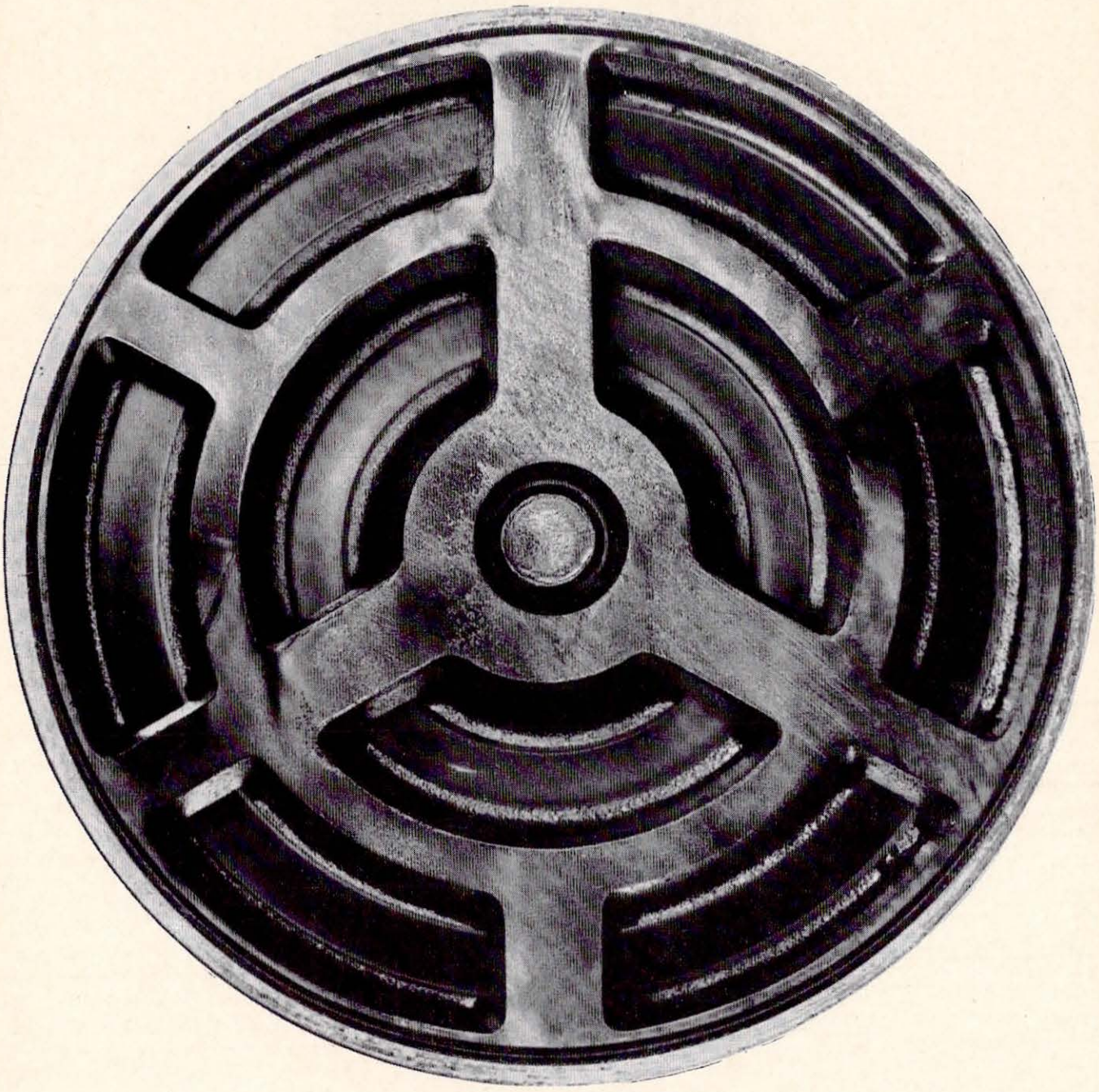

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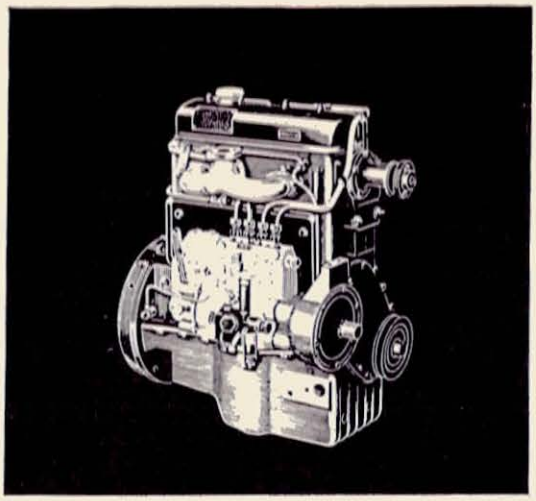

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The Bureau already has formal arrangements with 17 Class I railroads, one industrial railroad, a mining railroad, and a private car company. Successful completion of four-year courses qualifies apprentices as journeymen. Some roads use accelerated programs, turning out skilled machinists, electricians, carmen, car inspectors and other craftsmen in as little as three years. In the case of especially responsive students, two years is sufficient for the regular four-year course. But short of full apprenticeship programs, many other railroads use shorter REB courses for upgrading and refreshing.

Railroads and trainees get feedback.

Instructors of the Railway Educational Bureau, all active railroad men themselves, grade students' examination papers and make individual comments and suggestions to the students when such help is needed. In the case of formal, company-sponsored programs, the railroad gets a monthly report of each students' progress.

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How to participate.

Besides formal apprentice training programs on a contract basis, railroads may help an employee by paying half his monthly tuition, or all of it, or by reimbursing the employee on successful completion of his training. Or, like several railroads, they may authorize payroll deductions.

For more information.

Write now, or phone collect, to Joe S. Betz, Director, Railway Educational Bureau, 1809 Capitol Ave., Omaha, Nebr., 68102, telephone (402) 341-7889, or Harry L. Waddell, Simmons-Boardman Publishing Corp., 30 Church St., New York, N.Y. 10007, telephone (212) 964-3060.

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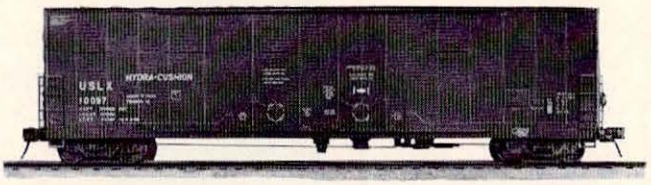

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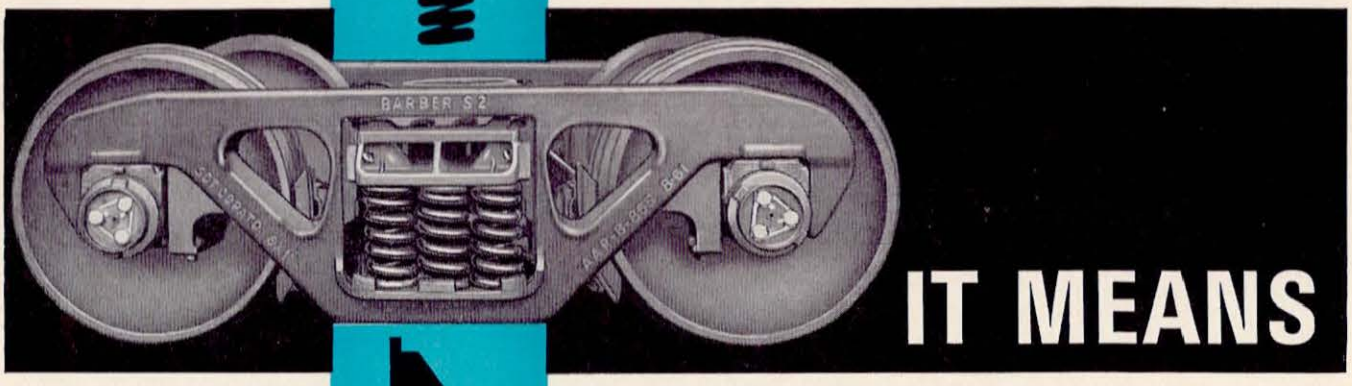

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SANTA FE'S "SUPER C" (above), runs 94.0% on time. Vice President-Operations Larry Cena (left), calls it "one of the greatest morale boosters I've ever seen."

Managing power the Santa Fe way

ATSF's Cena wants (and gets) a good run for his money.

By GUS WELTY Senior Editor

Not too many of the old axioms of railroading still ring as true as they used to. But one surely does: Without power, you don't move. And the railroad that does a poor job of managing its motive power pretty quickly winds up poor in other ways as well.

Santa Fe has been doing a good job on the power front—both in keeping its fleet modern and in using it well. Operating people, however, are convinced that a good job can be done better. And so Santa Fe is making a number of moves designed to help it maintain high service levels:

—Locomotive acquisitions are being stepped up, from 90 units last year to 120 in 1970. Seventy-one units will come from EMD—61 2,000-hp GP38s and 10 3,600-hp SD45s. General Electric will build 49 2,250-hp U23Bs.

—A new power distribution center is scheduled to begin operation March 1 in Chicago.

—Studies are well along on a proposal to rebuild a number of older "covered wagon" A-units to road-switcher configuration as replacements for aging yard and secondary-line power. A prototype has been built, and consideration is being given to a long-range rebuilding program.

Vice President-Operations Larry Cena is high on all these improvement efforts. Acquisition of more power is always helpful, assuming it's the right power for the job. The centralized power-distribution system, he believes, has the potential to "do more to maintain and improve service quality than any single other thing we might do." And the locomotive conversion program, if it goes through, will go a long way toward solving yard and light-duty power problems.

● **Three parts to power.** Cena breaks the total motive-power picture into three parts—buying, maintaining and distributing. He's not convinced that any of the three have been handled in the best possible fashion. In the big surge to dieselize, he'll argue, railroads did not have enough experience with this type of power to consider what moves could be made when locomotives get old and/or when power requirements changed.

Along with a number of other roads, Santa Fe has found itself in a bit of a bind—with yard power that must be replaced, with older road power (much of it F-type units) which can't easily be downrated to yard duty, with continuing demands for new mainline power and with a limit on the amount of money that can be pulled together for capital programs.

The rebuilding program under study might be the solution to re-equipping Santa Fe's yard and branch-line operations with a type of power adequate for and suited to the job.

● **Ideas from an airline.** In Cena's planning for power management, the other two aspects of the power picture —maintenance and distribution go hand in hand, and they will be handled that way. Santa Fe people, he says, looked in many areas before they found an integrated maintenance/distribution system they wanted to adopt. They found some good systems on other railroads. But the one that got the vote was being operated by an airline—which perhaps isn't surprising, in view of the precise timing and scheduling required on a major airline or in a far-flung railroad operation like Santa Fe's.

Cena is well aware that power maintenance/distribution can be a killer problem—one that seems to get worse in direct proportion to system size. And when you have a system which stretches

BETTER USE OF POWER MEANS BETTER SERVICE FOR ALL

two-thirds of the way across the country and from the Great Lakes to the Gulf, you can easily work your way into trouble—even without considering the seasonal traffic peaks and valleys which Santa Fe must also contend with.

Santa Fe is not a power-short railroad by any means. Its roster shows more than 1,800 units, and there will be those 120 new ones coming this year. But that power has to service a 12,900-mile system—and imbalance can develop. In early 1970, for example, Santa Fe has been experiencing a heavy movement of export grain. There has been a consequent heavy demand for power to move the traffic to Gulf ports. As it happens, Santa Fe has been able to handle the demand without endangering mainline schedules. At the same time, there has been no real, central power control which could anticipate the inevitable tailing off of the export business and plan for the redistribution of power to new need-points.

● **Opportunity for inefficiency.** Under current practice, there are more than a dozen "power distributors" on Santa Fe—which means, coldly, that there are that many possible areas of inefficiency. There is, operating people note, a quite natural tendency of power managers to hoard—to hang onto an extra unit or two or three or four, "just in case." By one estimate, decentralized power distribution may involve an inefficiency factor of 10%—and even that estimate may be conservative.

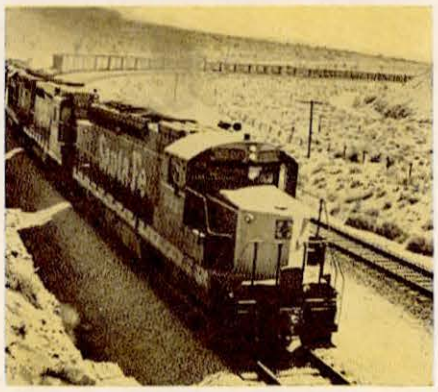
The rationale for central power control is simple: Operating headquarters in Chicago has a feel for operating demands, system-wide, that no regional or division power distributor can have. And with Santa Fe's present communications (3,200 miles of microwave) and management-information systems functioning as they are, nothing's happening—or about to happen—that GHQ is not aware of.

So, for most of January and February, workmen have been hammering and pounding and cutting and fitting, in a large room on the 10th floor of Santa Fe's Chicago general office building. That's where the power center will be—staffed 24 hours a day, seven days a week. Distributors there will have direct lines to all major power-dispatching points over the system. And they'll be located just down the hall and around a couple of corners from the vice president operations and his staff.

● **Other factors get attention.** Cena is convinced that he's going to come out of all this with improved power utilization, which should translate into improved service performance. Meanwhile, he's also wrestling with other service-quality factors—and it's significant that the big "visual" in his office is a chart-laden easel which shows at a glance the day by day performance of Santa Fe's major symbol trains.

Last year, operating people measured the daily operation of 6,386 trains. And, while the charts don't show everything running ontime, Cena can look them over without getting too upset. Santa Fe is working on a service-dependability basis—to provide the service that's required, no more and certainly no less.

If a train isn't carrying a "shutdown" car—the kind of car that will shut down a receiver's production line unless he has it—there is less pressure. The main idea is to get trains over the road and yarded in time to meet realistic distribution schedules. It's shipper/receiver accommodation Santa Fe is shooting for—not ironclad adherence to a printed schedule.



POWER DISTRIBUTION

The Santa Fe's central power distribution system in Chicago is scheduled to go on line on March 1.

● **Good news.** How is this philosophy working out? Santa Fe is getting congratulatory comments from satisfied shippers. And Cena takes considerable satisfaction from the recent entries on the ontime charts. In January, he notes, the road showed a 50% improvement over the record of January 1969—and this improvement came during a period in which the cars-handled figure was showing a slight increase.

In a broad sense, Cena's approach to operations is a blend of imagination and experience. He'll buy the new technology (or make his own)—but at the same time he wants the chance to use the instincts which experience sharpens. He demands 100% from his people—and he's enough of a psychologist to have a pretty good idea of how to get that kind of performance.

"Look at 'Super C'," he'll say. "It's been running 94.6% ontime. And do you know why? Because everybody who has anything to do with that train *wants* it to run that way—the crews, the supervisors, the dispatchers, just everybody.

"That train has been one of the greatest morale-boosters I've ever seen. Our people are proud of that operation. They're watching it every minute. And that kind of interest rubs off on other operations."

● **Technology — and people.** Cena's convinced that all the new technology—the improved communications capability, the computers, the data-laden information systems—will help, up to a point. But, he emphasizes, to make a railroad perform the way it has to, "you have to have a lot of operating people who are watching and monitoring and measuring—constantly."

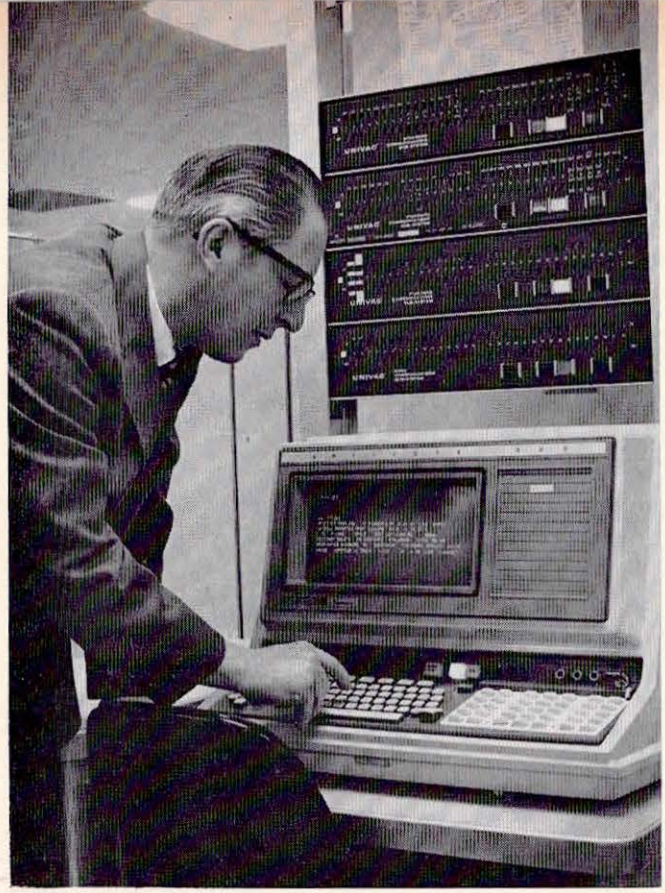
In pushing service quality, Santa Fe's operating VP will even play up something which *seems* as remotely connected as the road's safety program. Last year, Santa Fe people looked at their record, didn't like what they saw—and set out to do something about it (RA, June 9/16, 1969, p. 20). A systemwide safety-promotional campaign almost immediately started paying off. For 1969, the road showed one-third improvement in its safety record, measured in terms of reportable injuries and fatalities. January 1970 showed a 50% over January '69.

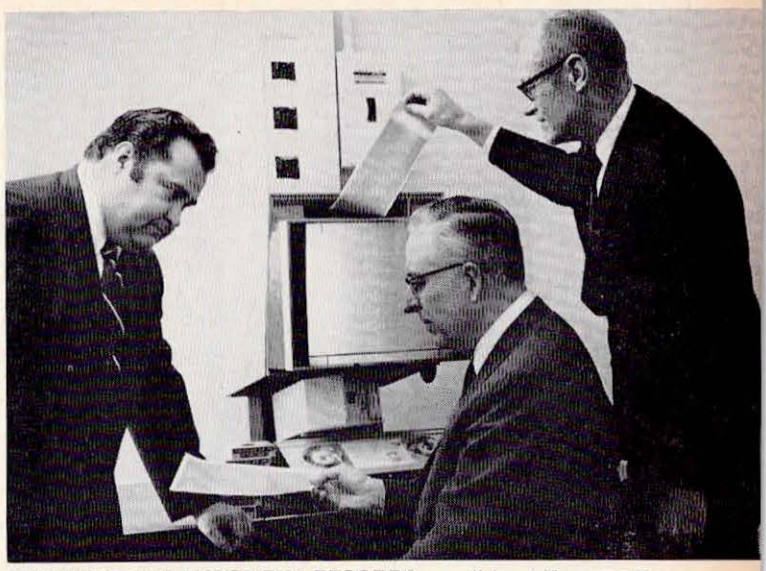
What's this have to do with service performance? There's one direct-bearing factor: Accidents in the operating department can slow down operations or bring them to a halt. But Cena-the-psychologist also observes that a safer railroad is a happier railroad—and a happier railroad gets the job done better.

Last year, the tangible reward for an improved safety performance was the Santa Fe safety train—and for each month of improvement, a division or terminal got another car to add to the desk-top train. This year, the safety train is "Super C"—and with feeling about that train running as high as it is, Cena's looking for further steady improvement in the record.

What comes next? Well, he says, "in 1971, I think we'll use the coaxial train."

Safety as a factor in service quality? You don't come away from a conversation with Cena without becoming a believer. And maybe, in the safety program, there's another reflection of his basic concept of how to run a successful operation: "Watch . . . monitor . . . measure. And do it constantly." ■





SCANNING CAR-MOVEMENT RECORDS are (l to r) Transportation Analyst H. E. Gagnier; L. C. Bolder, director-information services; H. J. Surles, general supt. of transportation.

CAR-MOVEMENT DATA (or figures for locomotives and cabooses), is instantly available via GN's UNIVAC Uniscope 300. At controls is Vice President Administration T. J. Lamphier.

TOMORROW'S RAILROADS IN ACTION—SERVICE

Can EDP help police car fleets?

The computer has yet to win its badge as an enforcer of an orderly car flow—but it's a key element in GN's car management program.

Talk about freight-car utilization to most railroad men and you touch on a sore point. Talk about freight-car utilization to Great Northern people these days, and you touch on one of several service-quality areas in which GN has been hoping to make real progress.

This is more than just a hope, even now. GN *is* making progress—thanks largely to car-management programs which have been fitting supply and demand together for some months. The system isn't perfect. But it shapes up as a good start on a workable way of making sure that the right cars go to the right places at the right times.

Like many roads, GN is cautious about making claims before they are fully justified. But you can't talk with men like Vice President-Administration T. J. Lamphier, or General Superintendent of Transportation H. J. Surles —or any of a number of GN operating or marketing or information-systems people—without coming away with the thought that this railroad is getting a much firmer hold on utilization and car-supply problems.

● **One step at a time.** Great Northern's total transportation service control system has been put together, building-block style. Part is the terminal performance control (TPC) program, first applied in 1968 (RA, June 17, 1968, p. 18), now installed at 22 terminal points and "working beautifully." Part is a transportation information network. Part is a freight service measurement (FSM) program, designed as a total check on performance dependability in movement of loads. And part is a car management control (CMC) system—man and the computer working together to forecast car requirements and to match car availability to shippers' needs.

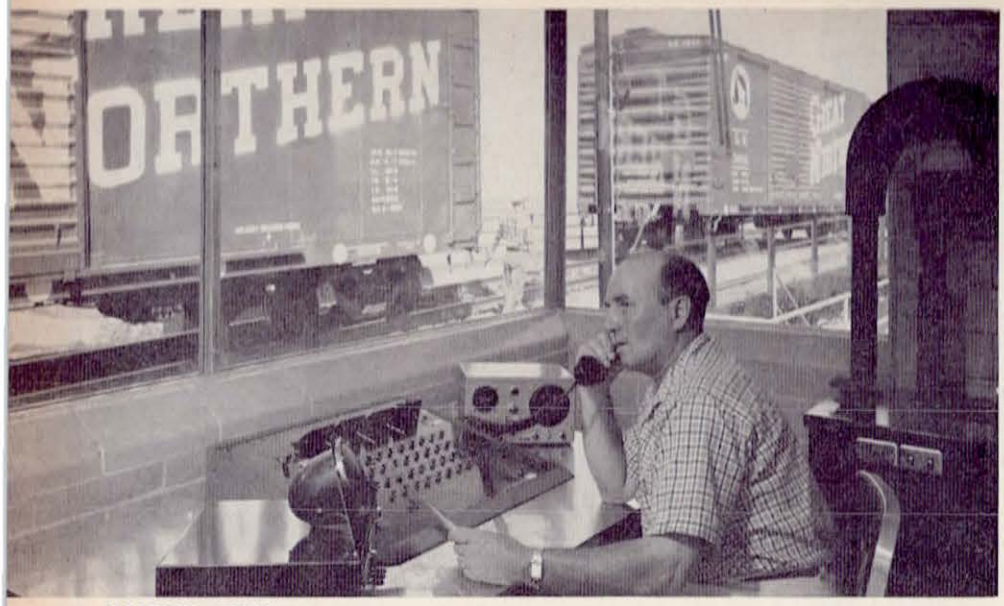
GN handles car distribution on a centralized/decentralized basis. Allocation of cars among regions is the responsibility of system officers in St. Paul. But car-order matching is a division responsibility, carried out by agents and terminal supervisors.

● **First move: Build a File.** Car-management people started with painstaking development of something for the computer to work with—a historical file, compiled for a three-year period. H. E. Gagnier, transportation analyst, concedes that initial forecasts of car orders were less than totally accurate—mainly because the three-year file had to be based in part upon car-loadings rather than upon actual orders placed. But, he emphasizes, the system was still "better than anything we had had before." And the accuracy of the file is being improved now, as GN adds-on current order data and drops old carloading data to maintain the 156-week time span in the computer.

Currently, GN is working with 23 specific car types and with car-order input on eight geographical areas. Two types of forecasts are being issued—one covering the following week, by days; and the other stretching over a six-week period, by weeks.

Gagnier and his people have two immediate targets: (1) To improve the quality of the forecasts, and (2) to expand the program to cover additional car types.

● **How the system works.** The working document for distribution is what GN calls a "deployment worksheet," prepared daily by car types and by areas. It begins with a forecast of tomorrow's orders, which is multiplied by



SAVING TIME
Terminal performance control has been installed at 22 Great Northern terminals.

a "target supply ratio" figure to produce a "target car inventory." The ratio multiplier is a GN-made figure, representing the number of cars which should be available to cover an order—taking into account a safety-stock factor and the possibility of a service failure.

Forecasters then add up the availability figures—empties-on-hand or en route-and-due-today, plus forecasts on cars which will be released or received in interchange. From the resulting total, GN subtracts orders to be filled today and net-old-open-orders. This subtraction gives a forecast-supply figure—which is then matched against the supply-quantity. A typical worksheet for one car type for one area might look like this:

A—Forecast orders tomorrow	13
B—Target supply ratio	3.5
C—Target inventory (A x B)	45
D—Morning, on hand	76
E—En route, due today	14
F—Forecast release today	20
G—Forecast interchange received	21
H—Forecast orders today	13
I—Net old open orders	10
J—Forecast supply (D+E+F+G−H−I)	108
K—Supply quantity (J−C)	

With this calculation completed for each car type and each area, GN has a handle on demand—and it is then up to car allocators in GST Harry Surles' office to determine how to balance supply and demand by hustling surplus empties between areas.

● **"No excuses."** Internal quality control on car distribution is tight. Performance is measured on a basis which regards even an impossibility as a "failure"—for example, in measuring percent-of-cars-placed-on-time, it goes in the record as a miss if a car is ordered for tomorrow and a tri-weekly schedule doesn't serve the order point tomorrow. In some ways, that kind of definition of "failure" seems unduly tough—but it does reflect GN's desire to provide a service and not just turn out shiny reports that make things sound better than they are.

One common problem in car distribution is the problem of dealing with the shipper who over-orders—perhaps because he has been hung-up by shortages in the past, or perhaps because he just wants to play it safe. GN, however, has a two-front approach to the over-orderer: (1) It has implemented an improved car-inspection and -coding system which makes it more difficult for a shipper to over-order and then reject-for-cause when he gets more cars than he actually needs; and (2) it has started a local-level program in which division car-management people are systematically covering shippers in their territories, to talk over car-supply problems and explain GN's new car-distribution procedures. These moves, plus the actual record of performance of the system, will minimize the over-order—GN hopes.

● **Built in flexibility.** In considering the total performance-control system, VP-Administration Tom Lamphier puts the emphasis in several places. GN's operation, he points out, is essentially control superimposed on information systems—not control and information in a single integrated system. This provides a certain flexibility in adapting to changing control requirements.

The big problem in the past, he declares, is that "we haven't known how well—or how poorly—we were serving the customer. And it's intolerable for a service organization to try to provide a service which it can't measure."

Now, however, things are different. Says Lamphier: "We *know* these systems are working." Shipper complaints to GN have taken a significant drop. Shipper car inquiries are also decreasing—which seems to indicate that both the service itself and the information provided about it are improving.

What will this mean to future fortunes? Lamphier phrases his reply carefully: "I've been led to believe," he says, with a trace of a smile, "that when a shipper is allocating traffic among carriers, he tends to favor the carrier that performs service in line with his distribution requirements. We believe that these systems, with their emphasis on reliability, are a real sales tool. And believe me, if a measuring system is not customer-oriented, it will fail."

● **Help from operations.** The operating department, he adds, is the key—and "if the operating department does not collaborate with the marketing department, even the best proposals will fail."

Something still ought to be done about the old divisions of "responsibility"—where the marketing department is responsible for revenue and the operating department for expense. But, he says, "all of us have been impressed with the attitudes that people have brought to these news systems."

He gets quick agreement from elsewhere in the organization—from R. L. Aase, manager-terminal systems, who rides herd on TPC; and from R. H. Shober, general manager-Lines East. Bob Shober takes special note of "the practical results of what starts out as a theoretical approach to a problem. The thinkers and the doers are hooking up. And we're coming up with programs that tie in with good, practical railroading. These things are not just a lot of window-dressing."

● **Goals and programs.** And it was an operating man—Shober—who sums up what GN is trying to do, to get its own house in order and improve the quality of its service: "We've been setting goals and establishing programs much more formally than we used to. Operations has always been a judgement matter—but now we can document the thinking process, and we can exercise a lot more self-discipline, by setting goals and setting up a time-path to reaching them. I guess you might call the whole idea simplicity through sophistication—sophisticated steps to simple solutions." ■

NP OPERATING VICE PRESIDENT N. M. Lorentzsen is key man in the railroad's program to make service-improvement moves—with one eye always cocked toward Burlington Northern merger.

NP's Lorentzsen aims at service—and profits

A man with a mission, Northern Pacific's operating VP doesn't care where new ideas come from—as long as they work.

His name is N. M. Lorentzsen. He's Northern Pacific's operating vice president. When Burlington Northern merger takes place, his operations responsibilities will multiply. He's an old-line operating man (by background) who does not think like an old-line operating man. He's a driver, with a fine sense of appreciation of the two most critical factors in the industry today—servicing and profitability.

One of Lorentzsen's main concerns has been upgrading NP's position on both counts. And it's not an easy job.

NP is coming off a not-so-great year. Profits were down. Service sometimes suffered, in large part because the northland climate dealt several vicious blows to railroad operations throughout the northern tier of states. Recovery was painfully slow, or so it seemed to service-conscious operating officers.

● **What's happened on NP?** Lorentzsen and NP, however, aren't crying about past woes. There's no time for that, because there's too much going on—both in planning and in doing. Among the pluses the road is working on:

—Terminal performance control (TPC) systems have been installed at major terminal points, in a program that began in the summer of 1968 and was completed last March. Full benefits of the control system are yet to be realized. But NP is convinced that they're coming.

—Later on in 1970, NP has been planning for installation of a total operations processing system (TOPS). The acronym sounds familiar, and it should: NP has figured on adapting and adopting the system developed over a long period of time and at substantial cost by Southern Pacific. Says Lorentzsen: "Quite frankly, we could see no reason why we should 're-invent the wheel,' when SP already had a program of this type."

That's typical of NP. Its TPC program is an adaptation of a system developed on Great Northern. And, when you talk with Lorentzsen and other top officers on NP, you get the feeling that they couldn't care less about pride of authorship, or about the old-line railroad theory that "nothing's any good unless we developed it ourselves." NP does its share of innovating. But it's also free-wheeling in adapting good ideas from the outside.

—Improvement of physical facilities is coming along. Terminal improvements have been completed at Missoula, Mont., and are well along at Pasco, Wash. This year, work is expected to begin on a five-year, $23-million-plus reconstruction of Northtown Yard, NP's principal classification yard in the Minneapolis-St. Paul area. Lorentzsen will be particularly happy to see this project take shape. Northtown was built in stages, over the years, and apparently each add-on was designed to solve a current problem, with less-than-adequate planning for future needs. One result is car-delay, created by the multiple switching of cars which the outdated layout requires. As Lorentzsen observes, glumly, "The most complete TPC or computer system in the world couldn't tell you how to operate Northtown in really efficient fashion."

—Installation of a system microwave network (completed in 1969) gives NP communications capability which will be ready to go as installation of TOPS proceeds across the system. Microwave cost NP $8.5 million. But, says Lorentzsen, "It's the greatest single improvement we've made in a long time—perhaps since dieselization."

● **How about the merger?** Other factors—less subject to NP's direct control—also figured into planning for service improvement. One, of course, is the Burlington Northern merger—with the problems it will pose and the promise that it offers. Around the Twin Cities (as around Burlington's Chicago headquarters and the SP&S operating base at Portland), the most-frequently-asked question of early 1970 was a simple one: "Heard anything from the Supreme Court?" But week after week passed, the Court remained silent and managements on all BN roads were forced to continue two-phase planning—for their own individual operations, and for merger in the event that the Court ruled in favor of consolidation. Then, the Court spoke—and the plan-

ning gears began turning even more rapidly.

Another factor in service-improvement is inter-road cooperation. Lorentzsen feels strongly about such matters:

"This is an area filled with opportunity for railroads to join hands on a common objective—to eliminate the annoying hangups that create delays that result in customer dissatisfaction."

● **And what about terminals?** On still another front, NP's operating vice president thinks it may be time to move in on one of railroading's time-honored concepts—the concept which led, years ago, to formation of switching and terminal railroads at dozens of terminal points, large and not so large.

His view, simply, is that by and large the terminal companies have outlived their usefulness and should be phased out of existence as separate entities. Necessary track connections would be maintained, and service would be continued to those customers served by the terminal lines. But the concept of the terminal road as a clearinghouse for interchange cars would be done away with.

Originally, Lorentzsen reflects, line-haul roads figured they could perform best as terminal-to-terminal carriers—with a separate switching line performing switching service for all (or most) carriers entering a terminal. But individual line-haul roads still built major classification yards at terminal points. Cars were subject to switching on arrival, switching through the terminal road, perhaps switching again in the outbound carrier's yard. Inevitably, the result was delay. Direct delivery, from inbound carrier to outbound carrier, began to grow in popularity. And with the tremendous recent increases in pre-blocking and run-through operations, Lorentzsen observes, the terminal railroad's original main function has become obsolete.

● **No sudden change, but . . .** With the problems involved in multiple ownership of most terminal roads, nobody—least of all Lorentzsen—expects to see overnight change in the structure of terminal operations. But in at least one case—on a terminal property in which NP has an interest—serious talks among owner lines are being held, regarding the future of the jointly-owned operation. Lorentzsen, for one, is hopeful that out of these conversations will come a terminal operation more closely geared to today's transportation service needs.

One of the service problems that remains—and, perhaps, always will remain—is the problem of getting men to accept what machines can do for them. Like every other road which has installed a performance-control system, with standards and measurements, NP has run into the people-problem.

The solution—insofar as one is possible—has been to involve terminal management in the development of the system, and to take all feasible steps to keep input errors at a minimum.

● **Looking ahead to merger.** NP has not installed its TPC system at all terminal points. TPC is functioning at seven terminals because (1) NP did not see the need for expanding the program to all yard or interchange facilities, and (2) with Burlington Northern merger coming up, hopefully, NP saw opportunity for extending already-installed GN TPC programs at common or closely-related points.

Likewise, TOPS/NP may or may not implement all of the data-base-supported features now being done or contemplated on the SP. Right now, TOPS is scheduled to go on line first at Duluth-Superior in October 1970, with implementation moving west between then and mid-August 1971. NP alone, Lorentzsen observes, might not need all of the data exploitation features of a complete SP-type system—but that kind of installation could be justified, under merger, with a composite of present off-line processing programs adopted from existing CB&Q and GN systems.

● **Accent the positive.** In any event, NP is concentrating on the positive in applying all new systems. There are hang-ups, even above and beyond the normal resistance-to-change which crops up in any new procedure. Supervisors need orientation when they are transferred from a non-TPC point to a location where the system is functioning. Operating and non-operating employees—switch crews and clerks who deal daily with shippers and receivers—must be informed as to what the new procedure involves, why it is being installed and what it will do. NP management is well aware of the tendency, down the line, to blame foul-ups on "that new system." Education, training and orientation efforts are designed to demonstrate that the "new system" is illuminating old problem areas, not creating new ones.

Norm Lorentzsen is neither a dreamer nor a magician. He operates out of the Twin Cities area—where it's a local phone call from some of the most service-conscious of all railroad shippers. Lorentzsen knows full well that railroads generally are doing an inadequate job of providing a total quality service. But NP has been trying. As he points out, a new service-quality control program on NP is being built on top of TPC. This, he says, "is our effort at furthering a quality-control program aimed at improving service. As our data base is expanded with new operating data systems, our ability to exercise quality control will be expanded. With improved facilities and a realistic quality-control program, we'll be on-target—and our aim is to provide service reliability."

Northern Pacific, early this year, also embarked upon a new advertising campaign. The word went out first to NP's own people, with this message: "At NP, there's only one way to look good. Look hard. Find a better way."

The first ad established the theme that "Some railroads are never satisfied." It goes on to say that NP will be talking about the progress it has made—but "there won't be any smugness when we talk about ourselves. . . . You know and we know there's plenty left to do. And we just can't take the time to be satisfied."

The brochure detailing the campaign went out to NP people with a note from Traffic Vice President E. M. Stevenson. The approach, he said, "is the only smart way to run an up-to-date railroad. But it takes people. Special NP people with that special attitude."

On NP, traffic and operations talk with each other. And the message could have gone out over Norm Lorentzsen's signature. He thinks that way, too. ■

THE NAME OF THE GAME IS SERVICE—and on the NP this means, among other things, efficient terminal-to-terminal movement and tight control of terminal moves.

NP's TERMINAL-IMPROVEMENT PROGRAM moved ahead while the Northerns merger was pending. Missoula, Mont. (below) has been a scene of big new-terminal activity.

How to keep a 120,000-carload customer happy

Kimberly-Clark now gives railroads 80% of its transportation business, and wants to give them more as its own sales soar. But to keep and expand this business, K-C warns, railroads are going to have to beef up their box-car fleet.

By Robert D. Bartley, Associate Editor

Ask at Kimberly-Clark how the Seventies might shape up and you'll probably elicit a lot of broad smiles. And, when the folks at this major paper and paper products manufacturer are smiling, a goodly number of railroads in the U.S. and Canada have reason to break out in pretty wide grins, too.

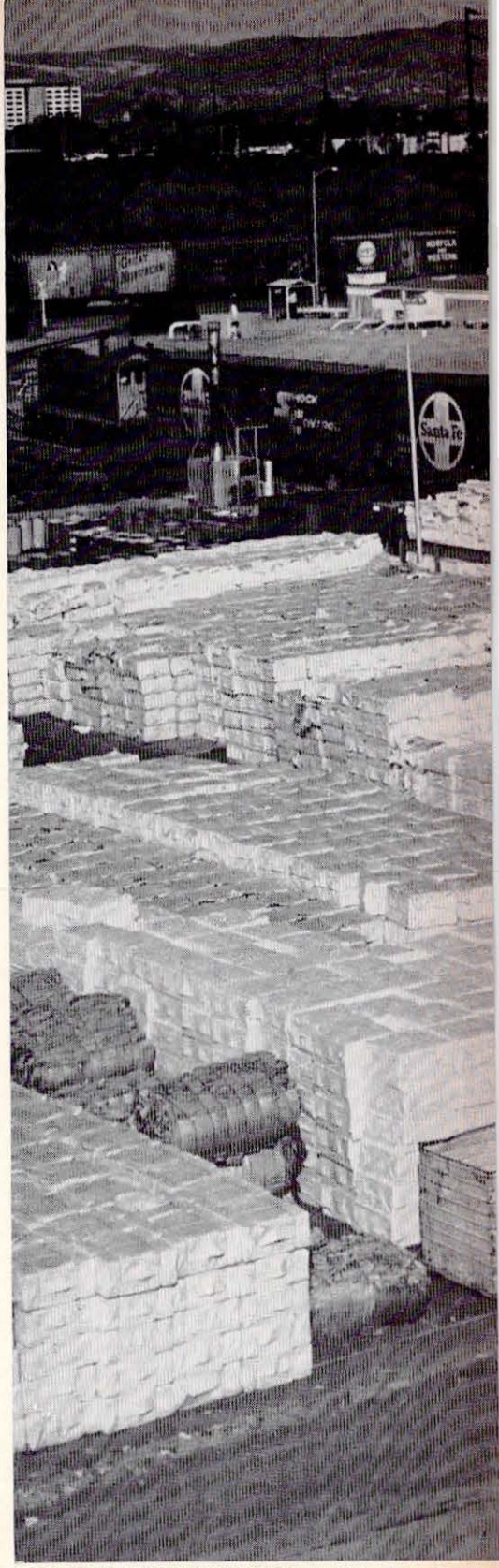
Why should K-C be so excited about the next 10 years? For one thing, U.S. paper and board production is expected to continue to rise steadily in the decade and top 77 million tons by 1980. Current production is 53.4 million tons annually, over double the production in 1951. The trend line for production took a sudden sharp rise in 1960 and there are no indication now that it won't continue on this steeper course through and beyond this decade.

Another and perhaps more exciting development is the market that's unfolding in the field of disposables, or nonwoven paper materials. This relatively new materials field, which K-C research helped develop, could become a $1.3 billion market in the U.S. by 1980. K-C market studies indicate that its share of this total market could be $300 to $400 million, which is just about equal to its current annual sales of household and sanitary tissue products with such well known trademarks as Kleenex, Kotex, Delsey.

● **The rail share.** What all this means to the railroads serving K-C's 34 U.S. plants and 14 Canadian plants can be summed up in one word—growth. In the past, anyway, while K-C's production and sales were growing year by year, the railroads shared in this growth. Five years ago, K-C's transportation bill for the year came to $53 million, with railroads getting slightly over 80% of that. Last year, K-C paid out $65 million for transportation services. The rails' 120,000-carload share: slightly under 80%.

It would be sheer folly for an individual railroad or the industry in general to assume, though, that this percentage is guaranteed for each year in the new decade. It could be that improved rail service could send the percentage up. On the other hand, any deterioration in the service could cause the share to drop.

K-C's general traffic manager, John C. Borg, isn't making any threats himself one way or another, but he does see the nation's dwindling box car ownership posing a real threat, not only to the railroads' ability to maintain their current level of service but also to their ability to hold their share of the market. In 1951, when paper and board production totaled 26 million tons, the U.S. box car fleet numbered 722,000 cars. Last year, when this production more than doubled, the fleet had shrunk to 546,500 cars. During this period there was a substantial loss in cubical capacity as well as cars. If you want a real study in contrasts, just look at the two trend lines in these



BOX CARS AND A RAILROAD can't be too far away when there's a sea of basic pulp bales like this. Photograph shows a scene at Kimberly-Clark's Fullerton, Calif., plant, served by the Santa Fe.

categories during the next ten years. Paper and board production: steadily up; box car ownership: steadily down.

Borg would be the first person to point out that the box car figures are suspect. Further, he says that K-C is fortunate that many of the railroads serving their mills have built many box cars. The box car of the 50s can't really be compared with the heavier capacity car of the 60s, and the 60s' car will undoubtedly average out to be somewhat smaller than the car of the 70s. Here's his account of what has happened, is happening, and will happen in one key region in which major K-C production plants are located:

"We shipped 12,500 box cars in 1956 and this figure grew to 17,000 cars a year ago. This, by the way, would have been 25,000 cars had it not been for heavier loadings in larger capacity cars.

"We expect to load 30,000 cars in this region in 1971 and 48,000 in 1980. All this takes into account cars of increased capacity."

● **Box-car needs soar.** What all this means is that even as the average capacity of the box car increases over the next ten years—which it will undoubtedly do—K-C's box car needs in just that one region will still increase almost three-fold from the level it's at now. Does this mean that the railroads should weep rather than grin? Should the railroads throw in the towel (a paper one, to say the least) because the paper business is growing and their ability to serve this growing industry seems to be diminishing? Not at all.

Let's look at the record. Since the railroads have 80% of the business in their hip pocket, this means the competitors are playing catch-up. If you've got—and have had for a number of years—four-fifths of a business, then it means you've been doing something right all along.

In discussing relations with the railroads' operating departments, K-C's department—the shrinking box-car ownership figures notwithstanding—thinks the railroads have been doing a lot of things right over the years. As for the future, there are people in the transportation department who feel that if the railroads could solve some of their problems, their future could perhaps rival the growth of the paper industry.

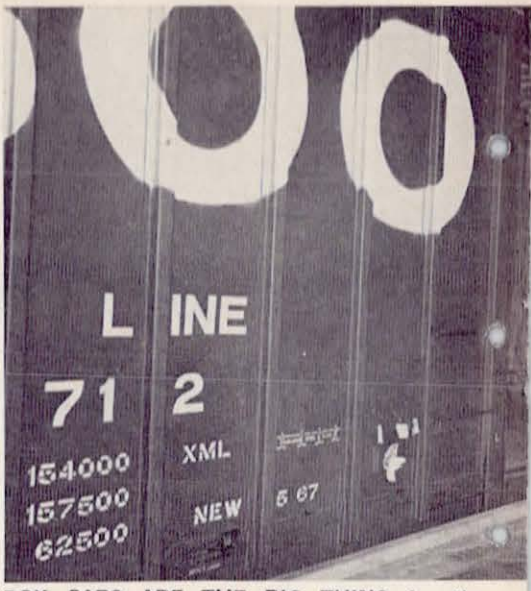
● **An ideal match.** Actually, if there was a matchmaker computer that matched up shippers with carriers best suited for them, the paper industry and the railroad industry would probably walk out of the counsellor's office arm-in-arm. To make paper and paper products you need wood, and lots of it, and getting cars to haul it has been a problem. Railroads have the muscle and brawn these shippers need. Bulkhead flat cars and gondolas make excellent vehicles for transporting pulpwood logs. Then there are wood chip cars; covered hopper cars for kaolin clay, a paper base ingredient as well as a coating substance. Tank cars are needed to carry chlorine and other bleaching agents. Box cars are needed for woodpulp, finishing supplies and other materials. Thus you have railroads transporting many of the essential ingredients for making finished paper products. Aside from this inbound service with raw materials, you also have carloads of coal for heat and power at some locations.

Outbound, it's pretty much a box-car story, although trailers, containers, tank cars and flat cars play a role in getting some products to markets. Outbound means getting, for instance, newsprint to the 250 newspapers served by K-C plants, or Kleenex to the thousands of supermarkets or other distributors across the nation, printing paper to magazines and other printers, or bedsheets to a metropolitan area for its hospitals. Outbound means, too, another essential step toward income. But, outbound, as far as K-C's transportation department is concerned, means most of all, box cars, box cars, box cars.

Almost every major railroad in the country serves K-C in one way or another. Most of these railroads know from experience that K-C demands service. K-C's demands are fair, though, and it does not ask for the impossible. Borg himself, and some of his key assistants, like John G. Ringleb, traffic manager-transportation services, who also is the newly-elected president of the Mid-West Advisory Board, are former railroaders. They know what railroads can and can't do, and they make it a point to keep on top of developments with the railroad industry.

● **Keeping in touch.** The K-C general traffic department is described by Ringleb as a "traveling department." Key traffic personnel are on the go constantly, meeting with rail officers as they seek to maintain service on a high level, maybe iron out some service problems, or perhaps to find a cure for a car shortage that is upsetting customer service from a plant. "There's no better way to solve problems than to meet eye-to-eye with a person," Ringleb emphasizes.

The K-C general traffic department and the mill traffic departments believe strongly in communicating with its carriers, and that doesn't mean just chewing them out when performance



BOX CARS ARE THE BIG THING for the

NO PROBLEM NOW—

TELETYPE IS USED for Kimberly-Clark's daily reports from 19 railroads.

is below par. Communicating means talking things over and settling problems to the mutual benefit of both shipper and carrier. Here, Ringleb says, are the messages he tries to get across when discussing K-C transportation needs with carriers:

1. Coordinate car distribution control between your central offices and your divisions. Put the job where it can be done the best.

2. Furnish the proper car for the proper loading. ("I have seen brand new cars furnished for hay loading," Ringleb states. "On the other hand, I've seen roughnecks, as we call them, furnished for high class paper.")

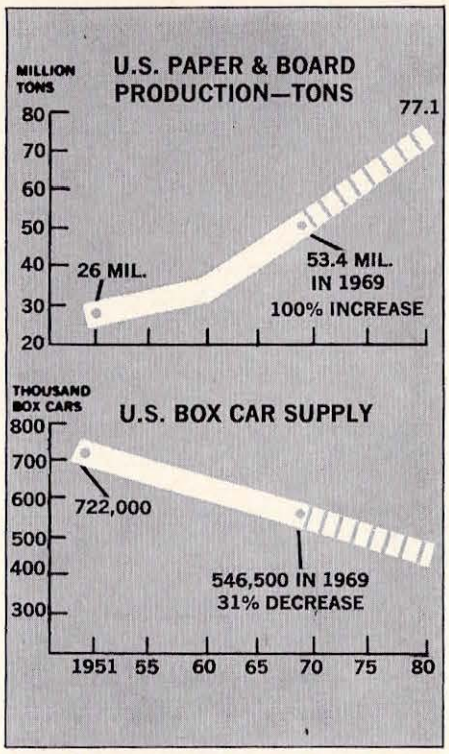
3. Attach the same importance to an empty as to a loaded car, and move it with the same respect shown a revenue car.

4. Run your time freights on schedule whether you have full tonnage or not and eliminate or minimize terminal delay.

5. Look ahead with the shippers to determine their needs for a longer period than one day. Long range

outbound Kimberly-Clark shipments.

BUT TOMORROW?



PROBLEM—Widening gap between trend lines of paper-board production and box car supply alarms K-C traffic executives.

PIGGYBACKING is used by Kimberly-Clark, too, but the box car is king.

planning for paper industry needs in the 70s is essential.

● **Two-way street.** "Communicating is a two-way street," says Ringleb. "In this business, one hand washes the other, and that should not be forgotten. The carrier has every right to expect the shipper to listen to his side and to cooperate."

● **Six ways shippers can help.** Thus, K-C, whose operations generated 120,000 carloads last year—47,000 inbound, 73,000 outbound—believes the shipper can do some cooperating of his own to help the car supply, cut costs, and add efficiency to the overall transportation operation. Here are some of the tips K-C offers shippers:

1. Order cars as far in advance as possible with complete information as to commodity and destination and routing if requested.

2. Confirm all orders in writing. (The K-C traffic department doesn't advocate this important point for the sole purpose of seeing its company's product, paper, used up." "Written confirmation will prevent a great number of problems and eliminate a lot of unnecessary headaches," advises Ringleb.)

3. Observe car service rules. (This may be a mandate, warns Ringleb.)

4. Do not inflate orders.

5. Load and unload promptly and unload clean.

6. Issue billings promptly—the day the car is pulled.

Most railroads, and a vast number of shippers, too, have heard or seen these carrier/shipper suggestions before. A frequent panelist at national and regional shipper advisory board meetings, Ringleb often mentions these pointers. He feels that, if they're followed, they'll help cure many transportation woes. Nobody denies but that they're well worth repeating.

● **Shipper/carrier task force.** Lately, a number of railroads serving K-C mills have been invited individually to participate in special task force meetings conducted by K-C traffic personnel. Sitting in for the railroad involved may be top central office transportation equipment and marketing officials, regional or divisional sales people, freight

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U.S. and Canadian Production Facilities

Location	Railroad Service
Consumer Products Division	
Fullerton, Calif.	AT&SF
New Milford, Conn.	PC
Niagara Falls, N.Y.	PC
	LV
	E-L
Balfour, N.C.	Sou
Beech Island, S.C.	SCL
Memphis, Tenn.	IC & Others
Neenah, Wis.	Soo
	Milw
	C&NW
Appleton, Wis.	C&NW
Conway, Ark.	MP
Pulp and Paper Division	
Coosa Pines, Ala.	SCL
	Sou
Anderson, Calif.	SP
Munising, Mich.	LS&I
Niagara Falls, N.Y.	PC
	LV
	E-L
West Carrollton, Ohio (Karolton Envelope)	PC
West Carrollton, Ohio (Moraine mill)	PC
	B&O
Kimberly, Wis.	C&NW
Neenah, Wis.	Soo
	Milw
	C&NW
Niagara, Wis.	C&NW
Champion, Mich.	Soo
Marenisco, Mich.	C&NW
Newberry, Mich.	Soo
Anderson, Calif.	SP
Mt. Shasta, Calif.	SP
Peter J. Schweitzer Division	
Lee, Mass.	PC
Mt. Holly Springs, Penn.	PC
Elizabeth, N.J.	PC
Spottswood, N.J.	PC
Windom & Breckenridge, Minn.	C&NW
	GN
	NP
Consumer Products Mills	
Winnipeg, Manitoba	CN
Lancaster, New Brunswick	CN and CP
Kapuskasing, Ontario	CN
Rexdale, Ontario	CN
St. Hyacinthe, Quebec	CP and CN
St. Catharines, Ontario	CN
Paper & Industrial Products Mills	
St. Catharines, Ontario	CN
Newsprint Mills	
*Kapuskasing, Ontario	CN
Pulp Mills	
*Lancaster, New Brunswick	CN and CP
*Kapuskasing, Ontario	CN
St. Catharines, Ontario	CN
Terrace Bay, Ontario	CP
Nonwoven Materials Mills	
Niagara Falls, Ontario	CN
Lumber and Sawmills	
Longlac, Ontario	CN

*Associated Company

claims personnel, the agent and local representatives of the transportation department.

Sitting in for K-C will be the mill manager, his traffic manager, other mill people and division distribution representatives. Here again, the carrier/shipper problems and interests are discussed, but in specific rather than general terms. For instance, on the subject of shipping schedules and car supply, K-C may discuss specific car requirements for the specific mill during a short or long range time period. Assigned and pool cars may be topics of discussion, or car ordering or billing procedures, or service via the gateways, or new yard facilities, or switching service, freight claims, carload tracing, computer reports, and so on. The whole idea is to coordinate the transportation so that both the shipper and carrier may benefit.

The carriers are enthusiastic about these task force meetings, reports Borg, and they're actually setting dates on their property for future meetings of this type with K-C task force personnel.

Because cooperation can reap so many benefits for all concerned, K-C encourages the spreading of this spirit into other areas of the transportation business. Traffic department people are often consulted regarding equipment specifications when a road is anticipating acquisition of new equipment. Equipment manufacturers have also been helped when they need advice, and on several occasions, K-C has taken an active role in co-designing equipment that serves the paper industry. Just recently, K-C assisted in the design of a discharge system for a covered hopper that might serve starch processors.

● **Big role for computers.** Another piece of equipment which K-C's traffic department sees as a key to better transportation efficiency and quality is the computer. The computer, at the present time anyway, says Ringleb, should not be used as the final word in dispensing information. But, its importance has got to grow, he feels, and he's happy to see the railroads putting it to such good use.

Borg says that until the point is reached when through service and terminal handling are much more dependable, the shipper, because of customer service demands as well as car utilization, must monitor and audit carrier performance more than he would like to.

K-C itself is in the process of expanding its computer carload tracing operations at its Neenah, Wis. headquarters. To keep tab on its leased cars—close to 340 cars altogether, including cushioned box cars, covered hoppers and tanks—K-C has them permanently programmed into almost every railroad computer center in the country. It also has temporary or random access, or both, to a number of railroad computer information systems on all its car movements to customers. K-C is car utilization conscious.

The K-C traffic department first received computerized daily reports on car status from the Southern. Quickly, this service spread throughout the industry, until today 19 major roads are supplying reports on the status of cars which interest K-C, and the quality of this information continues to improve. Even bigger and more important jobs will be performed by computers in the future, Ringleb predicts. He thinks the

(Continued on page 43)

They know what good service means

TRANSPORTATION BOSSES at Kimberly-Clark are (left to right), John C. Borg, general traffic manager, and John G. Ringleb, traffic manager-transportation services.

"Our customers want results, not excuses." That's the message in the framed sign that hangs over the desk of John Ringleb at the Kimberly-Clark headquarters in Neenah, Wisc. The large paper and paper products manufacturer's traffic department quite obviously doesn't like the idea of making excuses. Consequently, it doesn't like to receive them either. Results are what it wants. Since railroads move about 80% of K-C's raw materials and finished products, they are the ones who must produce the desired results.

The K-C traffic department, directed by John C. Borg, may listen to excuses when transportation services fail to come up to par, but that doesn't mean the excuses will be accepted. Borg, Ringleb, and others in the traffic department, are either former railroaders or have been associated with rail carriers for years. They know when an excuse is legitimate and when it's not. They've probably heard them all in their years of trying to solve transportation problems, and particularly now when the quality of service is one of the most critical and continuing problems facing the railroads. By the same token, they have seen their share of good examples of transportation services and they know what it takes to make a service really click.

Borg, who received his LL.B. degree from the University of Omaha and also atttended Harvard's Advanced Management Program, began his traffic career with the Illinois Central in 1934. Later, he joined the Denver & Rio Grande Western where he served in various positions, including general freight traffic manager. In 1962, he joined K-C as assistant general traffic manager. Later that year he moved up to his present post as head of the department.

He is past president of the Wisconsin Paper and Pulp Manufacturers' Traffic Association, past president of the Wisconsin Paper Group, and vice chairman of the Transportation Committee of the American Paper Institute and of the Executive Committee of the National Industrial Traffic League. He is also a member of a number of other traffic, transportation and paper organizations.

Ringleb, who is the president this year of the Mid-West Advisory Board, comes from a railroad family and fully intended to become a railroader himself. He actually stoked a few fires before joining K-C in 1926. He held numerous jobs in or closely associated with the transportation field and was appointed mill traffic manager in 1941 at Niagara Falls, N.Y., his home town. In 1952, he was transferred to the K-C headquarters and, in 1960, was named to his present post as traffic manager-transportation services.

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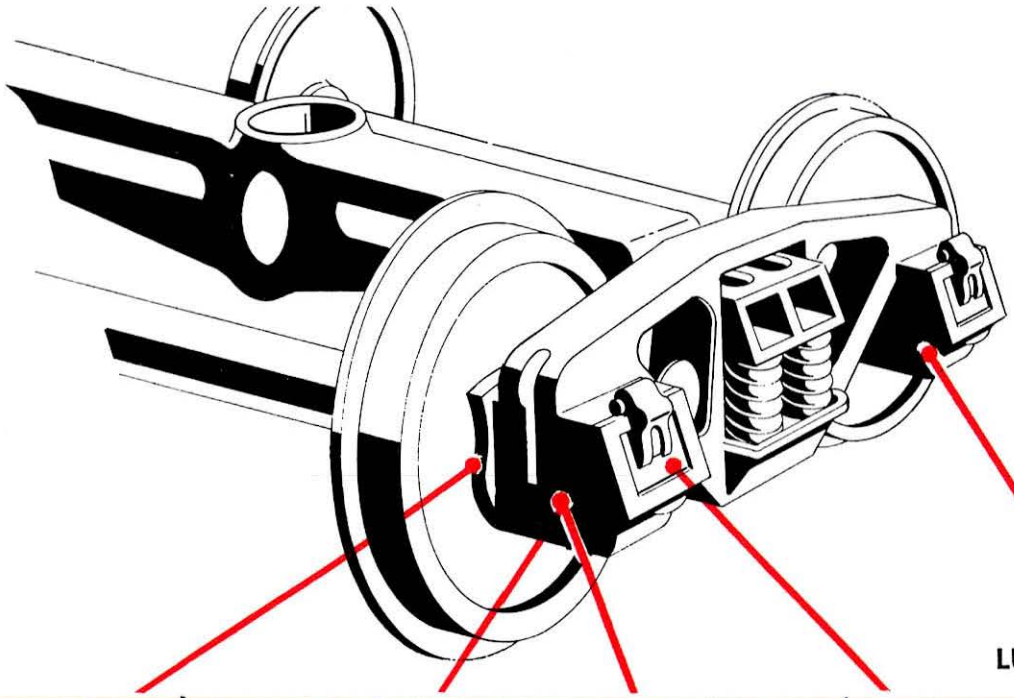

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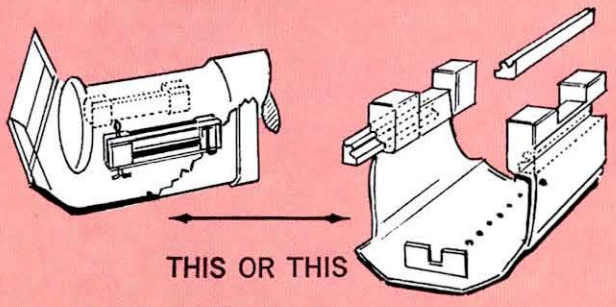

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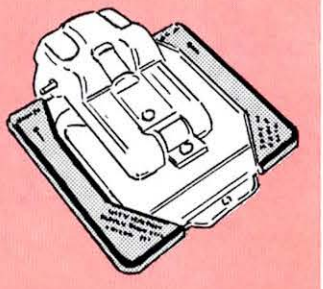

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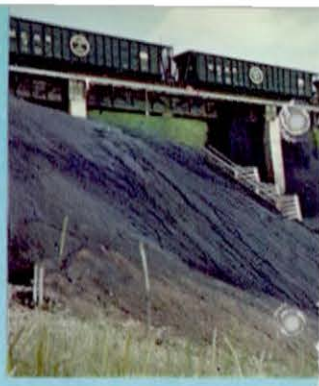
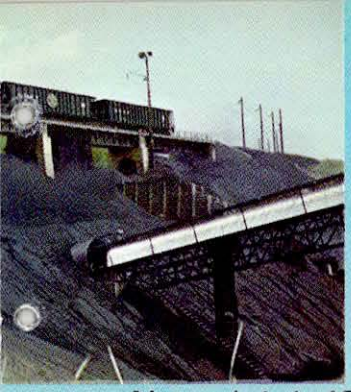


and how U.S. Steel helps railroads get more for their money.



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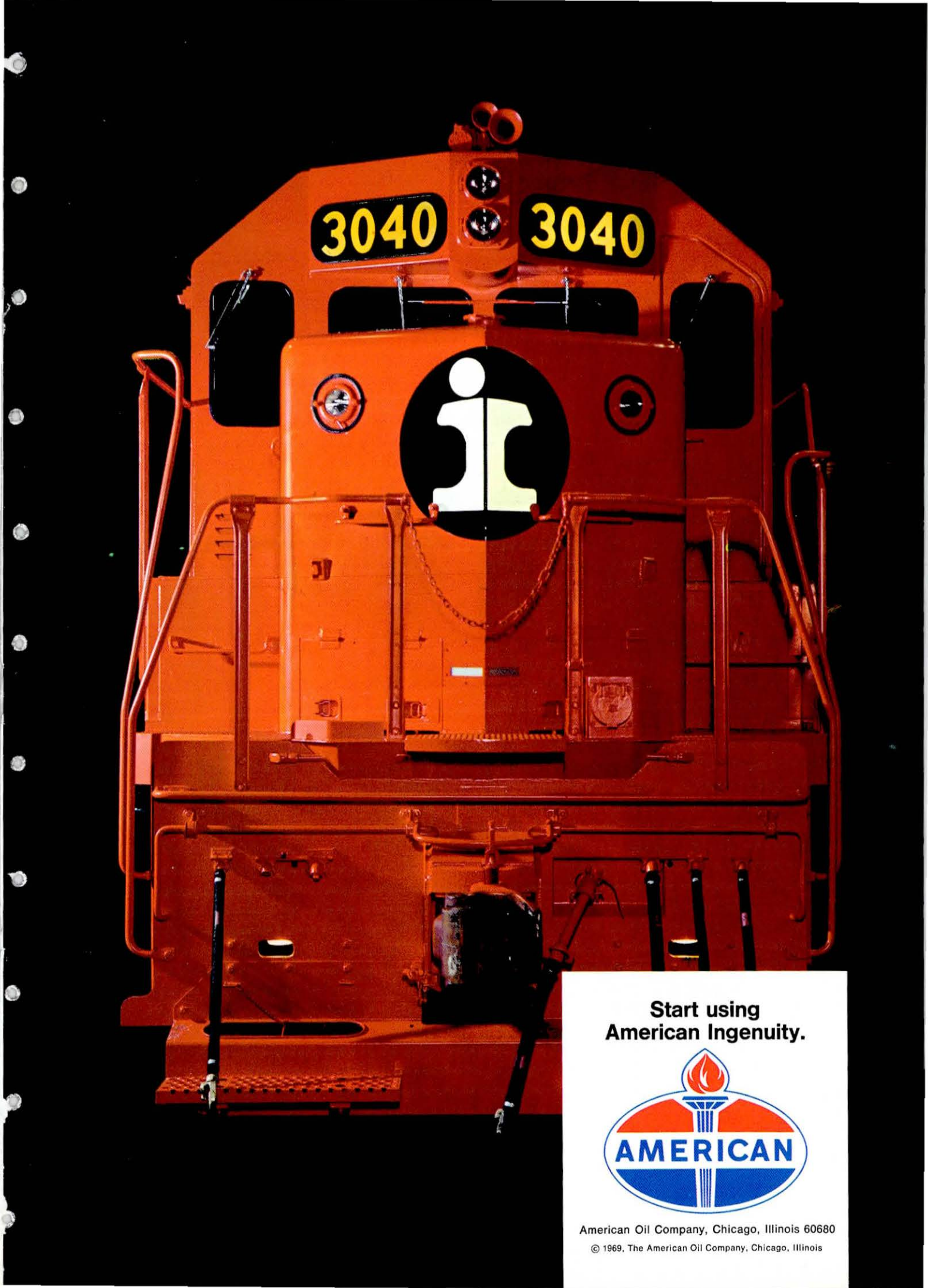

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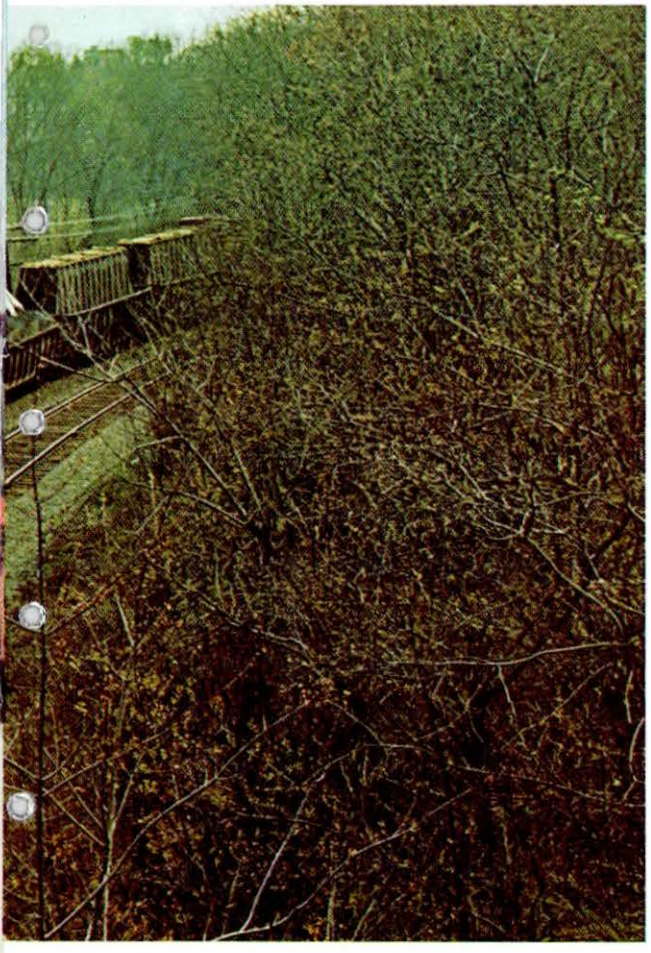

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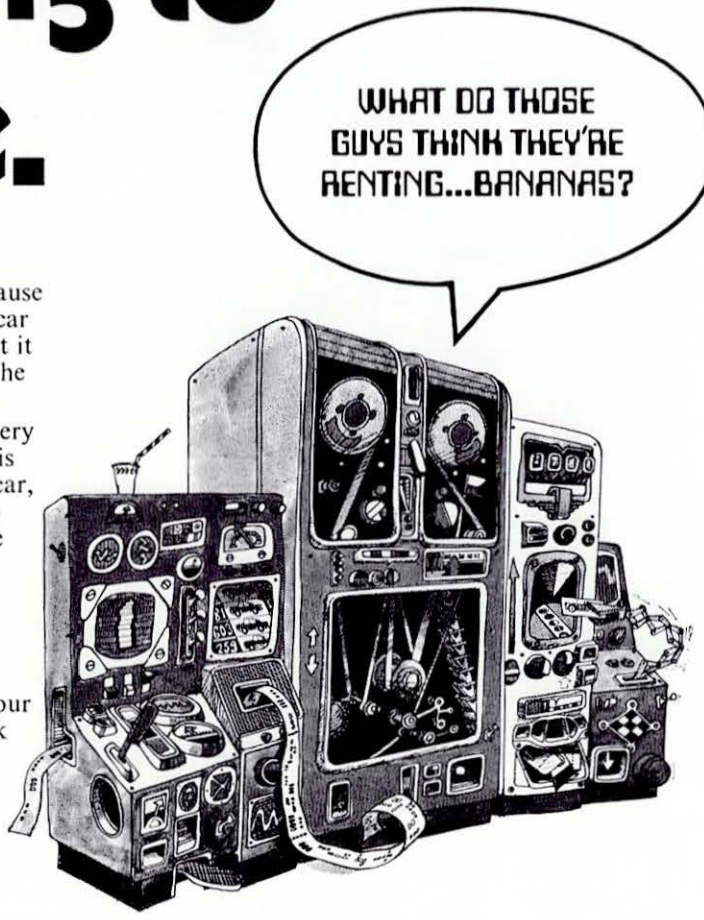

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How to keep a big customer happy

(Continued from page 34)

day may not be too far off when shippers and carriers "will have computer-to-computer billing."

● **Railroads too bashful.** It could be that the railroads and their personnel are not communicating enough about some of the things they can and are doing for the shipping public, Ringleb adds. A shipper, especially its traffic department, he explains, must insist upon consistent, reliable service in today's business climate. Oftentimes, there's little or no margin for error allowable in getting products to markets.

Ringleb sees the pre-blocking of trains, run-throughs at gateways, power pooling of locomotives, and other such improvements, as giant steps toward achieving consistency and reliability. Coordinated service, with two or more roads cooperating in the swift movement of revenue carloads from shipping point to receiver dock, can go a long way toward making rail service more attractive. Ringleb cites, among other operations, the coordinated service to the West Coast offered by the Chicago & North Western and its connections. This particular run out of K-C's Kimberly, Wis., mill, says Ringleb, is one that "we rarely bother to follow up on because we know the cars will arrive at their destinations on time." Testimonials on other coordinated operations could be made easily, he added.

● **The box-car bugaboo.** Obviously, the K-C traffic department's greatest concern is the shrinking supply of box cars which may be on hand to serve it, the paper industry, and other expanding business firms in the decade ahead. Aside from this worrisome problem, plus the need for dependable service, and recent freight rate increases, the outlook is bright. Railroads seem to be more communicative, more cooperative, more innovative, more service-minded than ever before. The K-C task force approach to K-C's problems and the railroad's problems at its mills, is producing current and long range benefits.

K-C hopes that the AAR's committee to implement an eight-point program to bring about further improvements in freight service will be successful.

Like K-C's famous tissue products, there's "a definite difference" in the approach railroads of today take toward providing service for shippers. This difference can be translated into terms held near and dear by carrier salesmen—ton/miles and dollars. In the next decade K-C will be generating both in increased quantities. ■

Watching Washington

FRANK MALONE

RAIL MEMO MOVES THROUGH DOT

What do America's railroads need from America?

That question should be answered any day now by Reginald N. Whitman, Federal Railroad Administrator, in response to a request announced by John A. Volpe, Transportation Secretary, in May 1969.

Whitman was asked for "his agency's views of where the Federal government could best assist the railroad industry in fulfilling its role as a key transportation system."

DOT will get the FRA views in the form of an "in-house memo." There won't be a publicized FRA "white paper," as had been conjectured. What the memo may say. however, is hinted at in another internal memo, one from James M. Beggs, DOT undersecretary, to John Volpe.

"I tend to be quite sympathetic with the railroads on the subject of subsidization," Beggs wrote. "It seems to me that the railroads have a legitimate complaint in view of the fact that the Federal government and the state government have ploughed very substantial resources into airports and airways, roads and highways, waterways, and have even supported to some extent, although certainly not sufficient, UMTA [Urban Mass Transportation Administration].

"The railroads on the other hand, have mostly been considered in the financial sense as a source of revenue for our state and Federal governments.

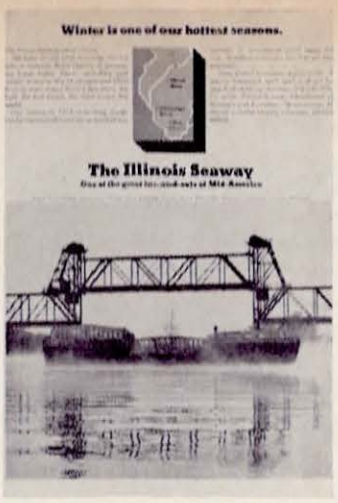
"I have therefore asked Mr. Whitman to conduct an overall study of this situation with an eye to bringing specific recommendations to your attention as to how we might provide a better balance with the railroads. This would include recommendations for specific legislation, as well as recommendations for increased budgetary authority to proceed with improvements in the railroad system."

FRA REPORT WOULD FIT DOT MASTERPLAN

Eventually, there may be a DOT white paper, based on the FRA views, and those of the highway and aviation administrations, too. As Volpe said recently: "We must stop viewing these various modes as independent, and begin to see how they interlock. That, in fact, is what we in the Department of Transportation are doing as we prepare the masterplan."

What can be done to adjust, with respect to rails, the imbalanced Federal focus on transport modes, has in fact been undergoing FRA analysis since FRA was formed in 1967. FRA sees itself with the job of doing within goverenment what the industry's spokesmen have failed to do on Capitol Hill—i.e., to prove (in ways that will get results) that transportation means more than highways and runways.

Volpe and Beggs should get a full answer from Whitman. The administrator has 40 years of rail experience, and his policy chief, James H. MacAnanny, 16 years. Many FRA specialists have similiar experience. They'll be matched with shipper input gathered by an outside consultant. FRA also talked to representatives of labor and finance. Rail presidents were consulted, for the benefit of their expertise, not for a rail "party line." One goal of it all is government participation on a national, rather than a regional basis.



Which ads impress shippers most?

The railroads' $5-million-a-year national advertising campaign is having a solid impact in an area where it's most needed: the shipping community.

A just-completed Railway Age survey shows that a majority of shippers feel the campaign is achieving its desired goal of awakening the public to the continuing role railroads are playing in the economy.

Out of 143 shippers participating in the survey, 107 said they regularly saw the AAR-sponsored TV, radio, newspaper and magazine ads—and of this number, 70 had favorable comments. "At long last the railroads are coming to life!" said N. C. Kunzmann, traffic manager of Georgia Pacific Corp., Bellingham, Wash.

"The AAR ads are making the general public aware that railroads offer a service to our society, that they are more than something in an old movie," observed Archie T. Walters, assistant general traffic manager of Allied Mills, Inc., Chicago.

● **Making the image fit the facts.** Railway Age undertook the survey as a sequel to one conducted two years ago (RA, Jan. 29, 1968, p. 31). At that time, shippers felt that railroads were really better than they appeared to be. It was generally agreed that railroads were failing to put their best foot forward—partly through lack of a broadly-aimed, consistent program of national advertising.

It was later that same year that the AAR re-instituted its long-lapsed national advertising program. A budget of $2.5 million was approved for that year. The results were sufficiently impressive that continuing $5-million campaigns were authorized for 1969 and subsequently for 1970.

● **Airlines still rate high.** In a comparison of the advertising of all modes, shippers still rate the airlines No. 1—not surprising in view of the fact that airlines outspend railroads in advertising by a ratio of about 10-to-1. (About 95% of airline ad budgets, however, are directed to passengers.)

The Railway Age survey also showed that:

—More than one third of responding shippers acknowledge that advertising affects their own choice of a freight carrier (a surprisingly high figure, in the view of one expert; see box on facing page).

—Shippers, while they think TV is great for appealing to the laymen, are themselves more likely to be influenced by the kind of service-oriented advertising which appears in the trade press.

—In addition to the AAR's national campaign, the service advertisements of individual carriers win a high degree of recognition and favor from shippers.

A sampling of shipper comments on the AAR campaign follows:

TRAFFIC POLL

1. Does advertising affect, in any way, your choice of a freight carrier?

Yes	51
No	92

2. Which of the following has the most effective advertising?

Railroads	9
Airlines	101
Truck lines	10
Water carriers	4

3. Do you regularly see or hear, in any of the media, advertisements promoting the railroad industry?

Yes	107
No	22

4. Do you regularly see or hear advertisements promoting the service of a specific railroad?

Yes	92
No	31

5. In which of the following media are you, as a shipper, likely to see a railroad ad which could influence your choice of a carrier?

Trade magazines	103
Newspapers	0
Radio	0
TV	8

Note: Some Poll respondents did not answer all questions

PRO

"We believe the ads are heard by, and interesting to, the shipping public."—W. L. Reid, director of traffic, CF&I Steel Corp., Denver.

"Low key and dignified."—O. E. Andersen, GTM, Penick & Ford, Cedar Rapids, Ia.

"Consistently improving, especially in the approach to the general public and the service the railroad industry provides."—P. J. Sullivan, director of distribution, Gerber Products Co., Fremont, Mich.

"Create public goodwill and interest."—C. A. Hoppe, S. C. Johnson & Son, Racine, Wis.

"Helping to improve the railroad image."—Robert A. Propf, director of transportation and distribution, George A. Hormel & Co., Austin, Minn.

"TV ads have been the most noticeable. Good for the railroad industry."—Miles F. Tamisiea, general traffic manager, Hamm Brewing Co., St. Paul, Minn.

"Interesting and informative."—T. R. Smith, Jr., traffic manager, Toledo Edison Co., Toledo, Ohio.

"A step in the right direction to get the attention of the public."—W. M.

AAR campaign wins high marks

Johnson, GTM, Gulf Oil Co., US, Houston, Tex.

"TV ads excellent."—E. S. Rosenzweig, TM, Longview Fibre, Longview, Wash.

"Very eye-catching and effective."—E. M. Burk, TM, Wyatt Div., U.S. Industries, Houston, Tex.

"Well reasoned, modern approach readily understood by layman."—Howard N. Bull, assistant traffic manager, American Crystal Sugar Co., Denver.

"Conveys to the public the importance and need for railroads."—W. E. Harvey, GTM, Swift Fresh Meats Co., Chicago.

"Compares favorably with advertising of others."—Robert J. Tyler, corporate traffic coordinator, Chemetron Corp., Louisville, Ky.

"Improved over the past two years."—J. W. Stewart, distribution manager, Grocery Products, St. Louis, Mo.

"Present ads are far more effective than past ads."—D. T. Warner, Jr., manager, transportation division, American Steel Foundries, Chicago.

"Excellent for the general public as an industry plug."—Henry M. Karel, director of distribution, Cleo Wrap Co., Memphis, Tenn.

"To the extent encountered I find them well prepared for a generally uninformed audience."—W. D. Gordon, manager transportation and purchasing, Shenango Inc., Pittsburgh, Pa.

"AAR ads are quite good and appear to be very expensive considering the prime time shown."—J. J. Kelly, manager distribution, C&H Sugar, San Francisco, Calif.

"Very effective and attention-getters."—D. C. Smith, Kraft Foods Co., Chicago.

"Very effective via TV in regard to making an impression regarding importance of railroads."—H. H. Kohn, TM, Linwood Stone Products, Davenport, Ia.

"They carry the message of the need for railroads."—K. L. Sodergren, GTM, Interstate Brands Corp., Kansas City.

"Very well done; would appeal to general public."—G. F. Stunkard, TM, Union Tank Car Co., East Chicago, Ind.

"May make the general public more aware of the fact that the railroads are still in business."—R. C. Davenmory, GTM, New Holland Division, Sperry Rand Corp., New Holland, Pa.

"AAR ads are very good in making general public aware of rails. So many think only of the declining passenger business."—J. Robert Morton, director of corporate transportation, Combustion Engineering, Windsor, Conn.

"Recent AAR advertisements via radio appear to be quite effective."—C. R. Ellenwood, Jr., TM, American Plywood Association, Tacoma, Wash.

An expert's view

Railway Age showed the results of its advertising survey to an officer of a leading advertising agency and asked whether these levels of influence and awareness were about par for the course. Here is the reply:

"These levels are unusually high. For example, more than a third of your respondents say that advertising affects their choice of a freight carrier. We find that people are generally reluctant to admit that advertising influences them. For a consumer product, a 10% 'Yes' on such a direct question would be high—even though far more influence can be detected through indirect questions.

"For a trade-magazine audience, 20% would be a good response. But your 36% is fantastic! The awareness figures for AAR advertisements (83%) and specific railroad advertisements (75%) are also unusually high."

"I consider the ads to be quite effective."—E. H. Duke, supervisor shipping and traffic, General Electric, Rome, Ga.

"AAR ads generally are excellent. I do, however, have reservations about the use of fashion items, such as bikini bathing suits, in extolling the importance of railroads in keeping down costs. I believe it is generally known such items move in relatively small quantities and much if not most by air and truck."—Allen K. Penttila, director traffic and transportation, Evans Products, Des Plaines, Ill.

"Bringing the rails up to the level of respect they once had."—C. J. Bauhof, TM, Warner & Swasey Co., Cleveland, Ohio.

CON

"They are interesting but not true in all cases."—Marvin Fritz, TM, Dempster Industries, Beatrice, Nebr.

"Pure rhetoric, obviously designed to brainwash the uninformed."—J. S. Traunig, manager transportation & export, Ensign-Bickford Co., Simsbury, Conn.

"Not particularly effective."—J. A. Rowen, TM, Foremost Foods Co., San Francisco, Calif.

"Ads lack substance."—W. McFarland, traffic asst., First National Stores, Somerville, Mass.

"Impressive to those who do not know railroads' service—ref. Ex Parte 262,"—J. A. Illis, director of transportation, Outboard Marine Corp., Washington, Ill.

"Do not impress knowledgeable transportation people. Gross exaggerations!"—M. T. Power, GTM, General Portland Cement Co., Dallas, Tex.

"Very sterile."—E. H. Endroll, TM, Hollywood Brands Div., Consolidated Foods Corp., Centralia, Ill.

"What we need is improved service and car supply—not pretty ads telling us how badly we need the railroads."—G. M. Powell, VP, Federal Compress & Warehouse Co., Memphis, Tenn. ■

Federal funding for safety R&D?

Government, viewing rails as "a natural resource," would pay for most of a $62-million program now under study.

A three-level plan for railroad safety research that could cost up to $62.8 million is being offered by the Federal Railroad Administration as a possible form of Government action in the rail-safety area.

The plan, FRA says, would be funded by the Federal government "to a large extent," in addition to being federally initiated and coordinated. Drafted by an outside consultant, the plan reflects views of management, labor and public service representatives, FRA says.

The proposal is shaped according to three degrees of usability: an $11.3-million basic R&D program; a $36.8-million intermediate program (basic plus expansion); and the complete $62.8-million program. Each degree would cover fiscal years 1971 through 1975.

● **Not yet official policy.** In his endorsement of the proposal, however, Reginald N. Whitman, FRA administrator, cautions that (1) the proposal is not yet official DOT (or FRA) policy, and (2) immediate action must be dictated by what is shown necessary from railroad experience.

The plan, Whitman says, "is only one of the inputs which will be evaluated and considered in attempting to define a long-range safety research program."

And, Whitman adds, "the widespread time-related (age, service usage, maintenance) degradation trend for equipment and track and roadbed can be reversed without waiting for the results of any of the research projects which are recommended in this report.

"Simply by doing properly and consistently what railroading experience indicated to be necessary and effective a half century ago, the upward trend in derailments should moderate and reverse itself in direct relation to the quality of equipment and right-of-way inspection and maintenance."

● **AAR support, generally.** There should be no serious opposition to the proposal from an industry standpoint, says AAR's research vice president, Dr. William J. Harris, Jr., who has seen the FRA proposal but has not examined it in detail. Railroad men were responsible for some of the input of the FRA plan, he adds. One possible difference of opinion, however, might come over priorities, Harris says.

No matter how much the Government plans and coordinates the research plan, Harris says, the railroad industry still would be the one to translate the plan into action.

● **Basis for Federal funding.** On one hand, the FRA proposal says, it could be argued that railroads should underwrite a major part of research programs since they will be the main beneficiaries as operators of free-enterprise, profit-oriented businesses. On the other hand, however, "another, more realistic viewpoint would be to regard the railroad system in the United States as a national resource vital to the socio-economic health of the nation.

"The fact that it is comprised of independent, competitive (hopefully profit-making) enterprises is incidental, for it is only from this 'national resource' viewpoint that meaningful discussions concerning funding of the upcoming safety R&D program can emerge."

Some form of "upcoming" program would be required under safety legislative proposals approved by the Senate and awaiting House action.

● **The basic $11.3-million program.** As a minimum, FRA proposes coverage of four out of a possible eight areas: track and roadbed ($2.5 million); equipment design ($3.4 million); safety information ($4.3 million); and people ($1.1 million).

In each area, various elements would be covered as follows: track and roadbed would include track maintenance standards, welded rail behaviour, track monitor car, ballast conditions monitor, guideway R&D, and woodmember inspection aids.

Equipment design would include equipment design criteria, auto coupler systems, safety appliances efficiency, and inspection of wheels, axles, and journals.

Safety information would include master information system accident in-

Safety and the public interest: An AAR view

You might expect that a man who's been on the railroad scene just since Jan. 19—and has no previous carrier experience—might hesitate to comment on what he expects to do in a high level industry position. That doesn't hold for William J. Harris, Jr., AAR's new vice president for research.

First, Harris says, the AAR will have announcements to make on research "in several months." In 1970 for sure, "or I shouldn't be in this job," Harris says. Specifics, however, must wait.

Second, Harris has strong feelings about the Government role in private research that eventually will affect railroads, too. That role *should* affect rails, Harris says. Emphasis must be placed on bringing the railroad industry's research efforts up to par with those of other transport modes, he says. That means encouraging and achieving a definite Government role through proposals and funding.

The Government, Harris says, belongs in the research efforts of private industry to the extent that such involvement would work toward protecting the public interest.

"When it comes to transportation," Harris says "an obvious area of public interest is the area of safety. The Government already has recognized its responsibility in this area—in terms of support for research—as far as air and road transport is concerned.

"What we have to do now is to promote an equal demonstration toward the railroad industry."

Harris's previous experience puts him in an excellent position not only to have reached such a viewpoint, but also to be able to support the move for that "equal demonstration."

Harris learned how Washington works during eight years as assistant to the president of Battelle Memorial Institute and director of the research firm's Washington office.

He also has held the post of assistant executive secretary-planning for the engineering and industrial research division of the National Academy of Sciences-National Research Council. In addition, he was executive secretary of the NAS-NRC materials advisory board and of the NAS-NRC metallurgy advisory board.

vestigation and reporting, and early trend recognition.

The people category would include trespassers and malicious acts, training and qualification standards, train crew environment and performance, noise in accident causation, and hazards in yards, terminals and shops.

● **The intermediate program.** The intermediate program ($36.8 million) would include (1) four expanded areas of the basic program—$8.5 million for track and roadbed, $7.4 million for equipment design, $4.3 million for safety information, and $2.6 million for people, plus (2) four new areas—$8 million for train/track systems, $1.8 million for hazardous commodities, $1.6 million for communications and $2.6 million for policy.

That new area for policy would include: regulatory oversight of hazardous commodity shipments, international transportation safety practices, joint industry-labor safety efforts, economics of derailments.

● **The full program.** The complete FRA research package ($62.8 mililon) would consist of expanded versions of the eight areas of the intermediate program. It would include: $16.5 million for track and roadbed; $13.4 million for equipment design; $20 million for train/track systems; $4.3 million for safety information; $1.8 million for hazardous commodities; $1.6 million for communications; $2.6 million for people; and $2.6 million for policy.

● **How good are safety projects?** One way to judge the value of safety projects, FRA says, is to predict that a certain number of lives can be saved or a certain number of casualties can be prevented. However, FRA adds, here it is more valid to judge on the basis that major causes have been "systematically identified and realistically addressed, than to attempt to structure an obtuse and involved probability tree."

On that basis, FRA gives "benefit points" to the three proposed levels:

—Basic level gets 1,352 points or 53.6% of total, representing 18% of the complete program cost.

—Intermediate level gets 2,100 points or 83.2%, representing 56.2% of total cost.

—Full program gets 100% of points (2,523), representing the total cost.

The points, then, refer to crucial areas faced by the proposals, not to predicted reduction in accidents. "Even if it were possible to postulate on some reasonable basis that a given research program would be, for example, 85% effective in eradicating the causes of 95% of all casualties, there is no valid method for predicting the effectiveness of the necessary implementation," FRA says. ■

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to the Far East, April 9-25, 1970.

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Inspect the Tokyo and Osaka transit systems;
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Stay in the ancient capital of Kyoto and commute to Expo 70 via a different railway each day, each way;
Travel from Hong Kong to the Chinese frontier by rails.

Optional: Inspection of Bay Area Rapid Transit facilities prior to departure for Japan. Return stopover in Hawaii.

Abbreviated itinerary:

April 9: Fly San Francisco to Tokyo, Japan Air Lines.
April 17: Travel to Kyoto via New Tokaido Line
April 18-20: Expo 70, Osaka.
April 21: Fly Japan Air Lines to Hong Kong.
April 25: Return to San Francisco, via Honolulu

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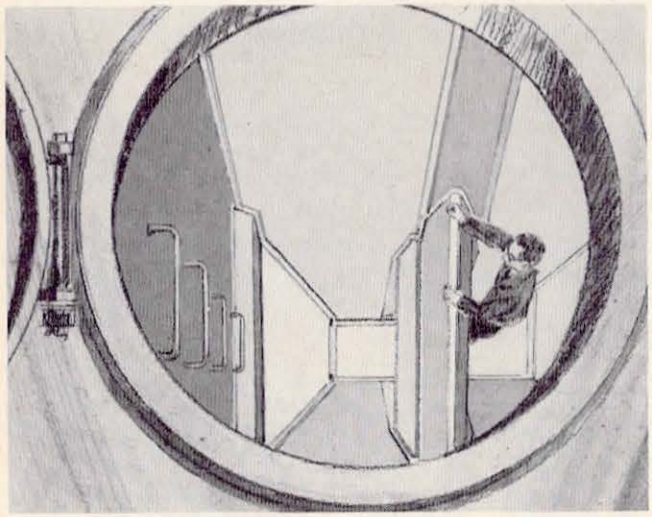

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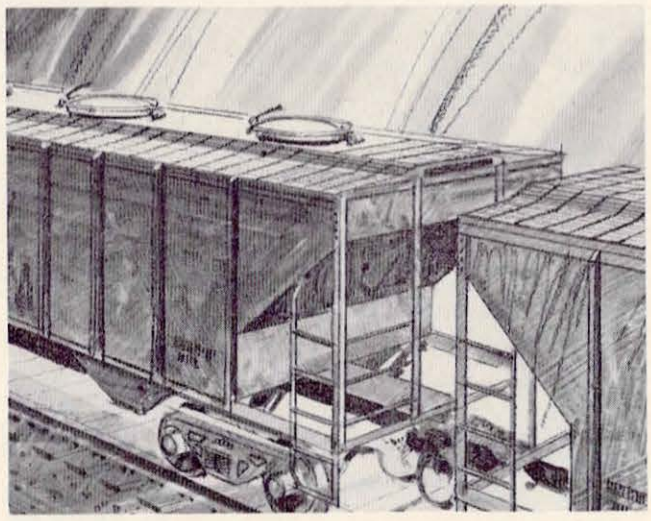

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Circle 19 on coupon page 69

People in the News

Wm. Henschell, Jr.
C&O-B&O

David L. Gunn
IC

Harold L. Snyder
L&N

Peter C. White
Milwaukee

Thomas A. Holzmann
MP

James O. Flaherty
PC

CHESAPEAKE & OHIO—BALTIMORE & OHIO.—William Henschell, Jr., assistant general manager, Northern Region, Detroit, promoted to general manager there, succeeding **Bulford G. Nash,** retired. **James L. Alvord,** assistant to vice president—operations, Baltimore, succeeds Mr. Henschell as assistant general manager, Northern Region, at Detroit. **Kenneth C. Morriss,** superintendent, Ashland—Russell Division, appointed assistant to vice president—operations, Baltimore. **Thomas K. Jenkins,** assistant superintendent, Grafton succeeds Mr. Morriss as superintendent at Ashland.

Frank R. Rice, Jr., assistant superintendent, Chicago Terminal Division, promoted to superintendent there, succeeding **W. J. Booth,** named superintendent, St. Louis Division, Washington, Ind. **R. E. Perry** succeeds Mr. Rice as assistant superintendent, Chicago Terminal Division. **Donald E. Farris,** superintendent, Washington, Ind. transferred to Newark, Ohio. **Ted H. Rollins,** trainmaster, Grafton, W. Va., named assistant superintendent, Ashland, Ky. **Charles N. Jaco,** trainmaster, Cowen, W. Va., transferred to Grafton. **F. S. Marshall,** assistant trainmaster and assistant road foreman, Grafton, promoted to trainmaster-road foreman of engines, Cowen.

ILLINOIS CENTRAL.—Edward R. Hohmann, assistant marketing manager, chemical group, appointed marketing manager of a newly established industrial marketing group to serve customers in such fields as sugar, tobacco, textiles, drugs, furniture and printed matter. The group will also handle marketing planning for such services as switching and transit.

David L. Gunn, manager of capital investment analysis, appointed assistant to the president, succeeding the late **Newell**

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The man they respect in most shops is the one who's apt to know the answer when a problem arises. You know a man like that; wouldn't you get a lot of satisfaction and personal pride in being like him? Such knowledge sooner or later always adds to the pay check, and too, pays off in greater job satisfaction and personal pride. And who can put a dollar value on that?

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PC

John J. Schmidt
Santa Fe Ind.

Kent P. Shoemaker
Soo Line

Bertel E. Pearson
Soo Line

Howard F. Coray
UP

Robert B. Hardin
UP

C. Brown, executive assistant to the president (RA, Feb. 2/9, p. 52).

LOUISVILLE & NASHVILLE.—Lawrence E. Estill, division sales manager, Chicago, named regional sales manager. **James H. Vaughn,** western general agent, replaces Mr. Estill. **Robert R. Jewell,** freight traffic agent-automotive, Detroit, becomes district sales manager, Chicago. **Joseph T. Kinnard,** office manager, Detroit, named sales representative-automotive there, succeeding Mr. Jewell. **A. Michael Renn** and **William F. Anderson** named sales representatives, Chicago. **Thomas A. Downes,** district sales manager, New York, named division sales manager.

Harold L. Snyder, director-budgets and economic studies, named assistant vice president-economic planning and budget administration, with headquarters in Louisville.

MILWAUKEE.—Peter C. White, senior cost analyst in the management services department, Chicago, appointed manager of market research there.

Frederick H. Voss elected assistant treasurer, Chicago.

MISSOURI PACIFIC.—Thomas A. Holzmann, assistant traffic manager, truck-rail and merchandise sales, St. Louis, named to the newly created position of sales manager-intermodal services, Pacific Region, San Francisco. **G. Clyde Underhill,** general superintendent, stations and claim prevention, St. Louis, appointed director, TOFC and stations operations there, a new position.

PENN CENTRAL.—James O. Flaherty, division sales manager, Akron, Ohio, appointed freight sales manager, Cleveland territory, succeeding **Daniel J. Butler,** retired.

Edward P. Frasher, general manager, New York Region, appointed vice president at New York. Mr. Frasher will direct the new PC management organization which will operate the road's New Haven to New York and Hudson and Harlem Division passenger service. The new organization also will work to implement plans with the New York Metropolitan Transportation Authority for modernizing Hudson and Harlem commuter operations. The railroad said the move was an important step in developing a partnership between government and private enterprise dedicated to modernizing an essential public service.

Responsibility for freight operations on these commuter lines will be placed under direction of the general manager at New Haven. Freight and passenger operations west of the Hudson River and Penn Station now handled at New York, will be transferred to the regional manager at Philadelphia.

PITTSBURGH & OHIO VALLEY.—Thomas H. Connolly has been elected president and director, Pittsburgh, Pa., succeeding **James K. Moore,** who retired Jan. 1 after 37 years with this road.

ROCK ISLAND.—Carl M. Sangree, senior cost analyst, Chicago, named manager-economic research there. **James R. Pehlke,** senior cost analyst, appointed assistant to the director of economic research and cost control, with headquarters remaining in Kansas City. Mr. Pehlke's successor is **George H. Durbala,** cost analyst, Kansas City.

ST. MARYS.—H. L. Johnson appointed supervisor of mechanical maintenance, St. Marys, Ga., succeeding **T. G. Wynn,** retired after 24 years with this road. Mr. Johnson was formerly associated with the **Jacksonville Terminal** and **Florida East Coast.**

SANTA FE INDUSTRIES—John J. Schmidt appointed vice president, Chicago. Mr. Schmidt also holds the position of assistant vice president-executive department, **Santa Fe Railway.**

SOO LINE.—Kent P. Shoemaker, assistant to senior vice president, appointed assistant vice president, operations. **John A. Dekay,** trainmaster, Thief River Falls, Minn., named terminal superintendent, Superior, Wis., succeeding **Kermit R. Bovee,** who retired Jan. 31 after more than 44 years of service. **Gust P. Economon,** assistant trainmaster, Minneapolis, named trainmaster, Glenwood, Minn. **Charles H. Hoffos,** assistant trainmaster, Minneapolis, becomes trainmaster there.

Bertel E. Pearson, assistant chief engineer, maintenance of way, named chief engineer, to succeed **Authur S. Krefting,** who retired Jan. 31 after 42 years' service. Mr. Pearson's successor is **Warren B. Peterson,** maintenance engineer. **Donald I. Kjellman,** chief draftsman, named to the newly created position of engineer, structures. **Bernard R. Prusak,** division engineer, Central division, Minneapolis, named engineer, construction, a new position. **William J. Egan,** assistant division engineer, Eastern division, Stevens Point, Wis., replaces Mr. Prusak. **Ernest G. Creelman,** staff draftsman, named to the newly established position of architectural designer. **John A. Hedlund,** staff draftsman, named chief draftsman.

SOUTHERN FREIGHT ASSN.—M. B. Hart, Jr., elected chairman, Standing Rate Committee, Atlanta, succeeding **J. W. Cleveland,** who retired Feb. 27, after 47 years of railroad service.

SOUTHERN PACIFIC TRANSPORTATION CO.—E. P. Anderson, special assistant to the general manager, appointed assistant to the vice president of operations, San Francisco.

TERMINAL RAILROAD ASSN. OF ST. LOUIS.—J. E. Pinson named director, management planning and development.

TRAILER TRAIN.—Gregory L. Bowen appointed administrative assistant to the president, Philadelphia, Pa. Mr. Bowen was formerly vice president of personnel, Perpetual Building Association, Washington, D. C.

Robert J. Williams elected general counsel and secretary. As corporate secretary, Mr. Williams succeeds **M. A. Haines,** who retired Dec. 31, 1969. Prior to joining Trailer Train, Mr. Williams was with the Legal Department, **Reading.**

UNION PACIFIC.—Howard F. Coray, assistant general solicitor, Omaha, named general solicitor there.

Robert B. Hardin, assistant superintendent, Portland, Ore., advanced to superintendent, Northwestern District, to succeed the late **William G. Johnson. Thane P. Rogers,** assistant superintendent, Pocatello, Ida., transferred to Portland, succeeding Mr. Hardin. **Jack F. Chapman,** terminal superintendent, Albina Yard, Portland, named to the newly created position of superintendent of Northern terminals. Mr. Chapman's successor is **Leo J. Schreiber,** assistant terminal superintendent, Albina.

UPPER MERION & PLYMOUTH. — Roland A. Geib elected president and a mem-

Roland A. Geib
Upper Merion

E. L. Van Dellen
WP

Donald H. MacLeod
WP

Walter G. Treanor
WP

ber of the board at Conshohocken, Pa He was formerly with the **Penn Central.**

WESTERN PACIFIC.—E. L. Van Dellen, vice president and general counsel, elected to the newly created position of vice president-law. Mr. Van Dellen is also vice president and general counsel, and a director, **Sacramento Northern, Tidewater Southern** and **Western Pacific Co.**

Donald H. MacLeod elected vice president and general manager. He was formerly a transportation consultant to the **Federal Railroad Administration.**

Walter G. Treanor, general attorney, promoted to general counsel, with headquarters remaining in San Francisco.

WESTERN RAILROAD ASSN. — James W. Nisbet appointed general counsel, Law Department; **Walter R. Nugent,** controller, Administrative and General Services Department; **Frank J. Stanton,** director, Public and Governmental Relations Department; **Robert C. Kniewel,** manager, Western Weighing and Inspection Bureau; **Guy H. Van Swearingen,** administrative assistant, Office of the President.

OBITUARY

Francis N. Bard, 87, founder and former president, **Barco Manufacturing Co.,** died Jan. 23 in Wickenburg, Ariz. Barco Manufacturing was sold to **Aeroquip Corp.** in 1963.

George H. Borgman, 71, retired assistant to chairman of the board, **Milwaukee,** died Jan. 21 in Columbus Hospital, Chicago.

James R. MacAnally, 61, senior vice prsident, **Union Pacific,** Omaha, died Jan. 29 in Chicago.

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John P. Lynch
Thrall

Glenn E. Stinson
WABCO

Robert M. Karow
WABCO

C. E. Stipancic
WABCO

SUPPLY TRADE

John P. Lynch has been named assistant vice president, sales, **Thrall Car Manufacturing Co.** Mr. Lynch was formerly in charge of sales for **Standard Forgings, Division of Standard Alliance Industries, Inc.**

Glenn E. Stinson, manager of railway and industrial sales, **Signal and Communications Division, Westinghouse Air Brake Co.,** has been named manager of engineering of that division, Swissvale, Pa., succeeding **Arthur Hoogerhyde,** named director of operations planning at WABCO's executive offices, Pittsburgh. **Robert M. Karow** has been named manager, market planning and development, and **C. E. Stipancic** has been appointed manager, railway markets, Signal and Communications Division.

INDUSTRIAL TRAFFIC

Albert J. Carr, general traffic manager, **Krause Milling Co.,** Milwaukee, Wis., has been elected vice president—transportation.

Robert E. Heine has been appointed director of physical distribution, Illumination and Electrical Products Group, **International Telephone and Telegraph Corp.,** New York. Before joining ITT, Mr. Heine was general distribution manager, operations, **Allied Chemical Corp.,** New York.

Joseph F. Mackevich has been appointed traffic manager, Laminated & Coated Products Division, **St. Regis Paper Co.,** with responsibility for the coordination and supervision of all rail, motor, and air shipments for the division. He was formerly traffic supervisor, Customer Service Department of the division's main plant and office in Attleboro, Mass.

Jerome E. Byczynski has been promoted to senior traffic and transportation analyst, **Richardson Co.,** Melrose Park, Ill. Prior to joining the Richardson Co., he was employed for ten years by the **Chicago Great Western.**

Robert N. Roegner, manager of transportation and distribution—foods, **Armour & Co.,** Chicago, has been appointed director of corporate transportation and distribution. **D. A. Chute,** manager, transportation and distribution services department, has been appointed transportation and distribution manager, fresh meats division.

Robert K. Clement, distribution manager, **California Almond Growers Exchange,** Sacramento, Calif., has been transferred to New York and will develop a new system of distribution for all markets east of the Rockies.

William T. Poole, assistant superintendent, has been promoted to superintendent of transportation and labor, Youngstown district operations, **Youngstown Sheet & Tube Co.,** Youngstown, Ohio, succeeding **Donald C. Kent.**

William C. Fleck has been appointed corporate director of traffic, **DeSoto, Inc.,** Administrative and Research Center, Des Plaines, Ill.

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For TMs, '70s pose new problems

Traffic managers are in trouble. Their old order is gone and there is no single, simple "new order" to replace it. The 70's will be hostile to traffic managers who don't know their goals, their costs and their computers.

In sum, that was the message to come out of a seminar sponsored in Minneapolis Feb. 9-10 by the Twin City chapter of Delta Nu Alpha transportation fraternity. Eleven speakers said, with varying inflections, that the traditional traffic function, if pursued traditionally by industrial and carrier people alike, simply won't do the job.

Col. Edward A. Guilbert, president of the Transportation Data Coordinating Committee and seminar luncheon speaker, saw the paradox of technology vs paperwork:

"With emotional anticipation we approach a new decade that will bring even greater technological developments in transportation hardware and vehicles. This inspiring image fades rapidly when we turn from the glamor of vehicles and vessels and look behind the scene at the antiquated, institutional and sometimes parochial data and document processes that constitute the state of the art of transportation administrative processes."

● **Management shifts.** Management is shifting in the proper direction to resolve this paradox, several speakers indicated. One, Wendell Stewart, vice president of A. T. Kearney Co., called the "new" management highly systems- and planning-oriented: "It no longer thinks of individual functional activities as isolated, autonomous centers whose costs must be individually minimized if total corporate costs are to be minimized." Instead, Stewart said, management views each activity under the corporate shell as only a part of a subsystem the objective of which is to maximize its own continuation to the enterprise as a whole.

Stewart put the challenge in terms of cost data: "The biggest single problem in logistics today is a lack of adequate information on costs and other basic operating statistics. Start out this decade by knowing your costs, and you will most assuredly finish the decade having controlled and reduced your costs."

The clear-cut time and cost advantages of the various transportation modes are blurred, Stewart contended. "Now each mode has several submodes, and there is competition within the modes as well as between them. The traffic manager unable or unwilling to keep up with this dynamic aspect of transportation is doomed."

● **What about the computer?** Will the computer come whirling to the rescue? Only if traffic men yank the computers back from accounting and production people, said Sam A. Aliward, director, management information systems, of Louisville & Nashville:

"Clearly the threat by the computer to the traffic manager of the '70s is one of disuse, a failing on the part of the traffic manager to seize the use of this tool with both hands and to start swinging for his company.

"Without a computerized management-information system of his own, the traffic manager, his department and his company cannot remain competitive with those who have a firm grasp of computer techniques and who know how to use the internal and external expertise available."

● **How to handle tariff data.** Robert Maher, marketing supervisor for AT&T at New York, reminded the group that Battelle Memorial Institute has concluded that computers can store, retrieve and update existing tariff information, and that the time-consuming rate-search function can be computerized.

He pointed out a possible start in that direction in the use within the railroad industry of computers to print tariff pages. Things like this could lead to the formation of a master computerized tariff library readable by man or machine—but they could also contribute to the "already massive paper glut" if they're not controlled, Maher asserted.

Guilbert apparently isn't concerned about more paper, only less. He sees a "modernized and responsive transportation information system" coming in the next decade.

"The transportation distribution community will move toward coordinated information systems which will result in what can be called the 'doing-things-once' concept. Shipping information will be computer-generated, using uniform codes to provide the universal language necessary.

"A documentationless system is possible and a modern transportation distribution information environment will be the product of man and his machines in the 1970's."

Will it be today's traffic men there with tomorrow's machines? Stewart: "The key word is results. This places emphasis on change and transition and creativity. The new management is willing to pay and pay well for those capabilities. If you've got them, the whole world is open to you. If you haven't—well, I hope you married money." ■

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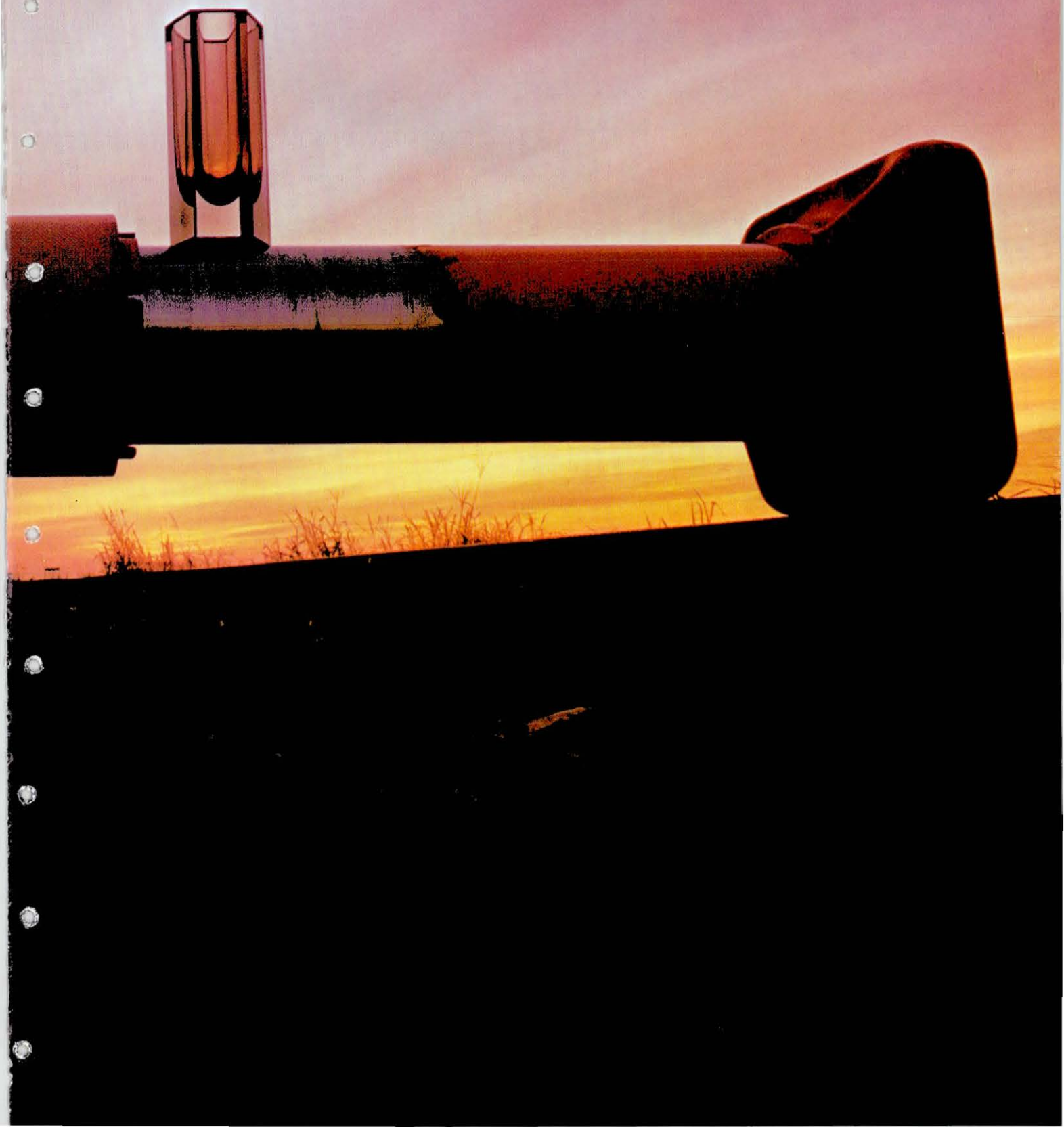

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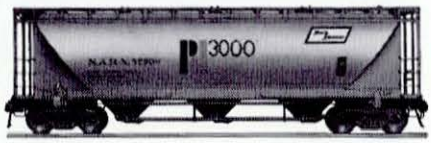

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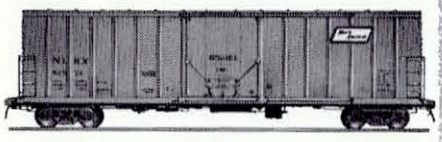

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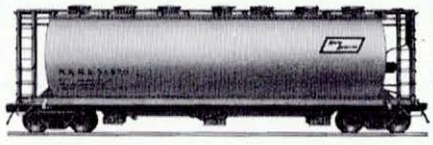

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TOMORROW'S RAILROADING—and today's—is discussed by Railway Age/Southern panel: Clockwise from top: L. S. Miller, W. G. Claytor, J. W. Kizzia, J. S. Crow, W. V. Burke, W. G. Handfield, R. S. Hamilton, G. S. Paul, J. H. McGlothlin.

Southern's management team tells it like it is

What makes a great railroad great? One answer must be: the men who run it. A railroad that meets most of the tests of greatness—rising revenues, rising income, a well-maintained property, and perhaps most important of all, a management team with great faith in what they are doing—is the Southern. The men who run the Southern were recently interviewed by Railway Age in two groups. Group I, questioned by RA's Luther S. Miller and Joe W. Kizzia, included W. Graham Claytor, president; W. V. Burke, vice president-sales; R. S. Hamilton, vice president-marketing and planning; J. H. McGlothlin, vice president-law; J. S. Crow, vice president-finance; G. S. Paul, vice president-personnel; and W. G. Handfield, assistant vice president-taxation. The edited transcript follows. (For a report on Group II see p. 64.)

Q. Mr. Claytor, how do you view the growth potential of the railroad industry in general, and the Southern Railway in particular?

Claytor: We think the long-term potential is good and ours is particularly good.

Hamilton: All of the projections that we have been able to make and find indicate that, over the next decade, the national requirement for transportation services will be up very substantially. Trends in our territory appear to be somewhat above the national trend. The only real difficulty we see nationally is the capability of the railroads to handle the additional traffic that will be available.

Q. Do you think railroads have leveled out at their present share of available ton-miles—about 40%—and their even smaller share of revenue dollars?

Hamilton: It seems very possible to increase the share, particularly in revenue dollars. Actually, though, even maintaining the present share will probably strain railroad capacity over the next few years.

Q. What is the Southern doing to increase its share?

Claytor: The first thing we're doing is spending a lot of capital on additional equipment and roadway betterments—$125 million in 1969, which was the largest capital budget we've had. For 1970 we will approach that, perhaps $120 million. We will probably have a little more in equipment and possibly a little less in other areas, but total spending won't change much. I think this is essential. In our case, we are concentrating on improving our

Photos by Maurice Mates

service. We are sending more run-through trains to other territories. We have three in operation now—one with the Southern Pacific from Houston to Birmingham, one with the Missouri Pacific from Little Rock, Ark. to Birmingham, and recently a new one, from North Platte, Neb., to Jacksonville, ville, Fla., via Union Pacific and Missouri Pacific. Others are under study.

Hamilton: We certainly don't see that our level of capital expenditures can be reduced substantially, over the next five years, anyway. I checked our percent of total ton-miles and our percent of revenues against the total industry and then projected what total capital expenditures would be, were the whole industry spending at the same rate as Southern. Interestingly, this indicated that if all roads were making the same proportion of capital expenditures, relative to their share of the traffic, the industry would be spending the $3 billion per year that I have seen bandied about as the amount it should be spending.

Q. Do you think that $3 billion is a reasonable figure, up from the present average of around $1.5 billion?

Hamilton: Actually, I don't know. Different railroads have different needs. Perhaps on some roads the proportion of capital expenditures ought to be four times what's being spent now. On other railroads, perhaps with relatively less expenditures, the needs are being met. But I don't think it's unreasonable to say that the industry as a whole should be spending at that level.

Q. Will the five-year amortization of rolling stock be as helpful to the Southern—in terms of new equipment acquisitions—as was the 7% investment tax credit?

Handfield: The five-year amortization of rolling stock will be at least as attractive from an incentive standpoint, because we get a better immediate tax break. We will have a lower tax bill in 1970 because of it. But the extent to which we use this is a capital investment decision. It is an incentive which I think will be very helpful to the railroad this year.

Q. Will the 10% preference tax be a serious drawback to your use of fast amortization?

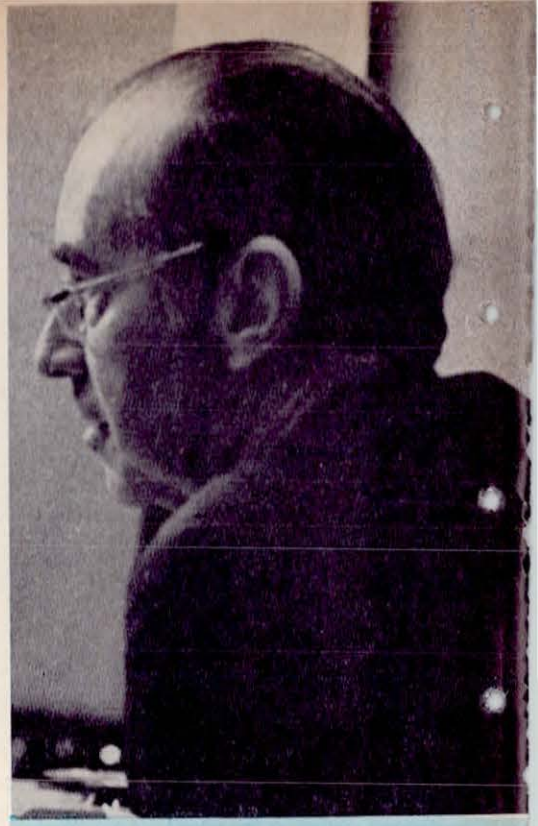
Handfield: It can be a drawback for railroads that have a low effective tax rate for other reasons. The 10% preference tax is a penalty on the excess of fast amortization over our usual depreciation deduction. Now, we are somewhat concerned that the amortization of railroad rolling stock was included as an item of tax preference, because it tends to defeat the purpose for which they put the amortization in the law—to encourage investment in rolling stock. And we are going back to the Congress this year. We hope to have this provision deleted and we have some reason to think they'll pay attention to us. The assistant secretary of the Treasury has indicated that he would support us in this, or at least not oppose us. I consider it a penalty tax. But because of our own position this year, our excess of amortization over our tax liability will not be significant. From an industry viewpoint, it could, however, be detrimental.

Claytor: Our final capital budget for 1970 is not fixed, but we will probably have between $90 million and $95 million for equipment, which will fall in this fast amortization category, out of a total budget on the order of $110 million to $120 million.

Q. Do you feel that a disproportinate amount of the total is being spent on equipment? Is sufficient investment being made in fixed facilities? In other words, is it a fact that we are putting today's equipment onto yesterday's plant?

Claytor: I don't think this applies to the Southern Railway. We obviously would be able to spend more for roadway relocation and capital improvement if we had any kind of reasonable tax writeoff of those expenditures. Now, until the last bill was passed we had no depreciation whatever of expenditures on grading and tunnel bores, for line relocation or opening up tunnels and that sort of thing. That money was sunk in the ground and you never got any of it back for any purpose until you retired the railroad, which hopefully none of us will live to see. The 2% depreciation for such work after Jan. 1, 1969, is a step in the right direction. But this 2% will not apply to anything done prior to that date. We think that's unfair and we are going to try to get it corrected in the future.

Furthermore, I'm sure we would relocate lines—lines which are expensive to operate—if we could depreciate the investment over a five-, seven- even a ten-year term. The cash thus generated would go a long way toward enabling us to finance such projects. Now we have other projects that we *have* done. For example, we relocated a portion of the Georgia Northern Railroad to provide a shortened through route from Jacksonville to Birmingham—we'll open it sometime in the spring. We will undoubtedly do more of this



"The first thing we're doing is spending a lot of capital on additional equipment and roadway betterments, in 1970 perhaps $120 million. I think this is essential. . ."

W. Graham Claytor, Jr.

"If all roads were making the same proportion of capital expenditures, relative to their share of the traffic, the industry would be spending $3 billion a year. . ."

R. S. Hamilton

kind of thing, even without fast amortization. But obviously we won't be able to do as much as we would like or as much as we should, unless we get a better tax break here.

LABOR AND PERSONNEL

Paul: We have been talking so far about improving and maintaining our physical and technical capabilities. We are also giving considerable attention on the Southern to our organizational and manpower needs which have resulted in various management development recruiting and training programs—as well as in the important area of negotiating more productive agreements with the organizations.

Claytor: I think our programs in this whole area are breaking new ground, not only in the railroad industry but in industry generally. In our negotiations, we have very much in mind what has been called productivity bargaining. We must bargain for changes in work rules which will permit additional productivity in exchange for additional money. We feel that this is a top priority problem of the industry. We hope to make some progress on it.

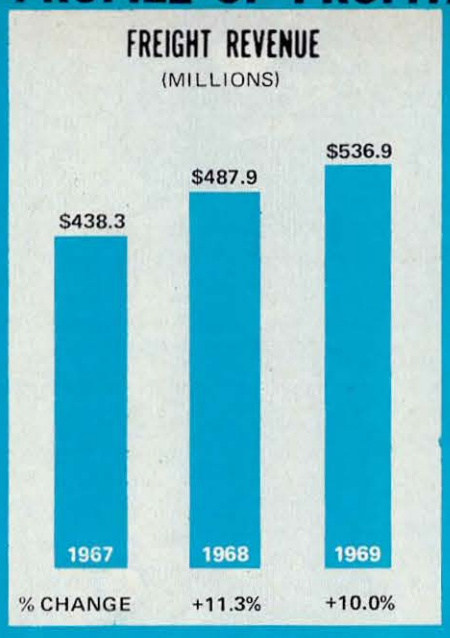
Q. What progress have you made so far?

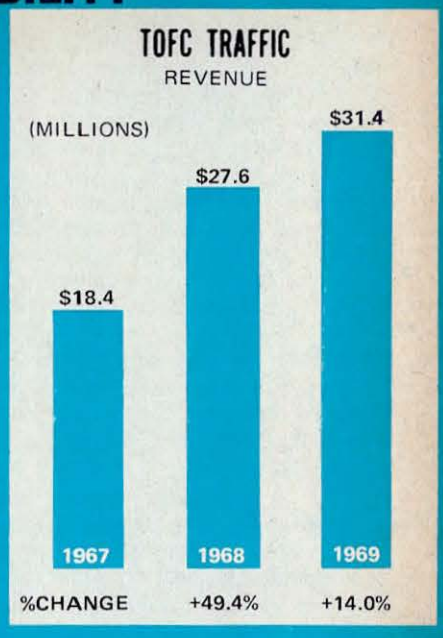
Paul: Our progress so far has consisted mainly of laying the groundwork with the unions that will make this kind of productivity bargaining possible. There was a breakthrough in this area in the shopcraft negotiations. The jury is still out on this, in effect; the contract, as it turned out, wasn't ratified. But the incidental work rules originally agreed to by the shopcraft negotiators were a major step in the direction of a composite mechanic, which would mean increased productivity. I think the railroad industry is more and more willing to share the result of its savings in manpower with the employee involved. We think this is ultimately the way. If you want to negotiate a contract which allows for greater productivity, you must show a willingness to return some of the savings to the people who helped make it possible.

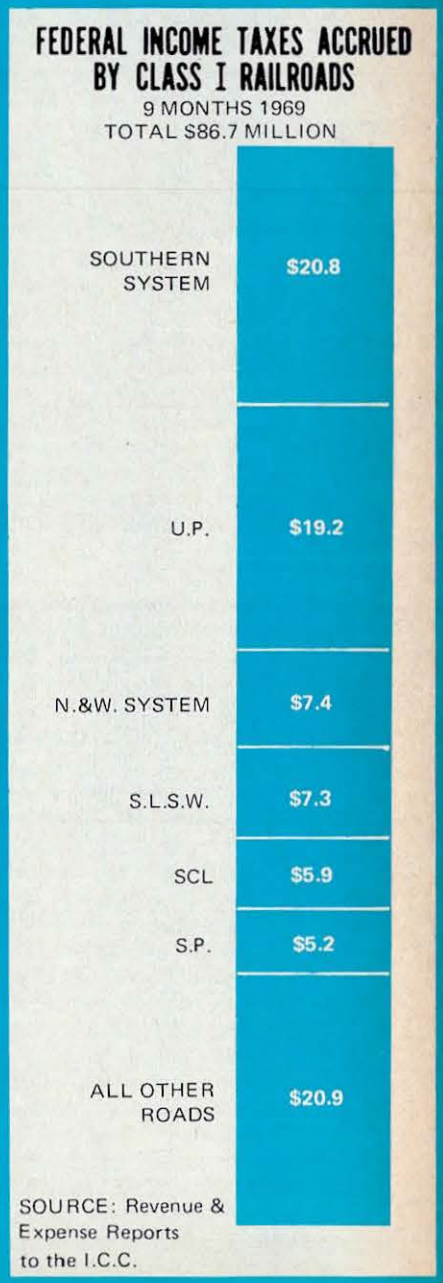
Q. The Southern last year was conducting its own talks with the United Transportation Union on the fireman-manning issue. Do you feel that the proper approach is to have a "leader" railroad break the ground, as opposed to national handling?

Paul: I would say generally not. Industry bargaining is the pattern, and

PROFILE OF PROFITABILITY







this is the way we ought to proceed. The case surrounding the fireman-manning issue was unique. When our railroad was approached by the organization, we were in a little different position than most of the other railroads. We had not been a party to the 282 arbitration. So for Southern to proceed on this issue was the normal thing to do. But this was an exception. We are cautiously optimistic. These talks are aimed, again, at productivity bargaining. A settlement of the fireman-manning issue would mean a more efficient operation of the railroad and a sharing of the resulting savings with our employees.

Q. How do you attract and keep on the railroad people who are promotable —people who will be your successors?

Paul: We're approaching this from several directions. We must always keep an avenue open for the man who shows promise and potential and can be promoted out of the ranks. But with the labor supply today, with the pace of management, we can't rely only on hiring people at entry level jobs and hope they'll somehow drift on up to the managerial level. Of course, we have difficulties, as all industry does, in attracting people at all levels.

We have, however, been able to attract the quantity and quality of people required—and we expect to be able to continue to do so by investing the appropriate effort required to recruit the kinds and the numbers of people we need. We have several continuing programs. The input program into the entering jobs of the union ranks—the switchmen, trainmen, clerks, the various shopcrafts—is a big area. In almost all of these areas we are conducting new types of training and recruiting programs to help these people become fully productive employees in shorter periods of time than ever before. We also have a very active management training program. We recruit about 75 people a year. For the most part these are new college graduates. They are assigned to various departments on the railroad but are first exposed to a centralized management training program before being assigned to a first-level management job. We interview at about 25 colleges primarily in our own area of the country. We are augmenting our internal development programs when the need arises by recruiting trained, experienced people from other companies, or in some cases, other industries. We hope to do less and less of this as our manpower development programs are adequately geared up to produce the quality and quantity of people as we need them. I feel strongly that the railroad industry traditionally has spent most of its time and energy on the physical and technical aspects of railroading and hasn't kept its manpower and management techniques in gear with that. Southern's personnel department is committed to the development of adequate manpower resources that will properly man the organization and keep pace with all the other kinds of dynamic progress being made on Southern.

INTERMODALISM

Q. Mr. Claytor, do you view railroads as essentially wholesale producers of transportation? Or is there a chance also that they may get back into "retail" transportation?

Claytor: If by retail you mean run-of-the-mill short-haul business by rail, not to any great extent. We might get into that, and profitably, if we break down some of the barriers between the modes and can integrate highway transportation with railroad transportation. But we don't see a big future for short-haul rail transportation except in specialized circumstances.

"The 5-year amortization of rolling stock will be helpful"
W. G. Handfield

Hamilton: It's true, of course, that should future labor negotiations in the manning issue change some of the economics, obviously certain situations that are not economically viable now would become so. But actually when you get down to the really short-haul type traffic, unless there's volume —and by the way, we have some very heavy volume movements that are relatively short haul that are profitable— but just for the average short-haul business, the highway carrier is really the more economical mode. Additionally, if you mean by retail the small shipments area, we obviously will have to get into trucking to do that, too.

Q. Can genuine intermodal operations be achieved short of common ownership?

Claytor: It's hard for me to see how it can be achieved short of common ownership, at least to any significant extent. We are very much interested in integrated, commonly-owned operations by rail and water, by rail and highway, and for the longer range future, by air as well. I put air third because the regulatory difficulty is probably the most extreme. Rail, highway and barge carriage at least are all under a single regulatory commission, and a combination would present fewer political and other difficulties. I think intermodal transportation has got to come. We are very enthusiastic for it. We think this can produce cheaper transportation for the shipper and profit for the carrier.

Q. Do you think the political climate has improved sufficiently in Washington to permit this in the foreseeable future?

Claytor: Certainly in the foreseeable future, but not with legislation this year. It's a long, slow fight. We will probably win it in small steps. I expect we'll try water carriage first, some of which may be possible without legislative change, then perhaps seek legislation for more water carriage, and then perhaps some truck carriage. I don't think the political problem is insuperable. I think there's a pretty good chance that, given some time, we may be able to do all of this.

DIVERSIFICATION

Q. Apart from diversifying into other transportation modes, how about diversification into non-transportation areas? Does the Southern have conglomerate aspirations?

Claytor: We certainly do not. I don't see any advantage—in efficiency, in management ability, or in anything else—that would produce more or better transportation by putting a conglomerate into a transportation company, unless, of course, you have something in the form of physical assets or specialized management talent to start with that gives you an advantage. In our area, we believe in taking all the resources which we already have and utilizing them to the best advantage. We are not in the happy position of owning large oil reserves, or natural gas, as some of our friends in the West are. We do, however, have a considerable amount of downtown real estate and we intend to continue work-

ing with all of that to put it to the most profitable possible advantage, whether or not it has any relationship to the transportation business. Apart from that asset, which we do have, we are interested in all kinds of transportation-related businesses where we might have a particular talent, ability or experience. For example, take municipal waste disposal. We have recently set up a department in Bob Hamilton's section to do this; and we've engineered a method of trash collection and disposal by rail which we think can probably do the job more cheaply than most other means of trash disposal. We're now working with the City of Washington on this. It's a small item but it is the kind of thing we're looking for all the time. Another area which we have not got into, but we might, is the whole area of distribution. We might be interested in looking into the warehousing portion of regional distribution. We have done nothing on this, but we are talking about it.

REAL ESTATE

Q. You mentioned development of your downtown real estate holdings. What precisely are you doing in this area?

Crow: We have identified some $20 million in unimproved real estate throughout our system that can be developed for commercial puroposes. We've been working for some time now in trying to put together a development in Atlanta, Ga., which, if it goes, could amount to $150 million or $200 million, maybe more in buildings there. We've begun a development in Charlotte, N. C. The first building is being constructed and leased to the North Carolina National Bank, an investment of some $5 million. Just recently Charlotte voted to build a Civic Center on our property which will, of course, enhance its value and we estimate that some $20 million will be invested there within the next three to five years. We're working on a project in Macon, Ga., which could amount to $10 million to $20 million. We have a two-thirds interest in a piece of downtown property, our old station property, in Birmingham, Ala. We have high hopes of putting a building on that property. We have bid on a government building and if it's awarded to us, we will proceed to improve this approximately 10 acres of land. We also have another three to four square blocks in downtown Birmingham that can be developed. We have other property in Atlanta, other than the station property. We have property in Knoxville, Tenn., in Alexandria, Va. We have some 10 acres in New Orleans near the French Quarter, near the downtown area. We have property in Chattanooga, Tenn., about 20 acres, and in Savannah, Columbus and Augusta, Ga., and also in Columbia, S. C.

PASSENGER TRAINS

Q. What is your feeling on passenger trains?

Claytor: Like any other railroad in the passenger business, we have a passenger-train problem. We are coping with it by doing two things. The passenger service we operate is operated at the highest possible quality level. We think this is the only intelligent way. We're running good trains, we try to run them on time, the equipment is kept in good repair and is clean, and our people in the passenger business are enthusiastic about it. They don't act as if they're at a dead end. They try to make the passengers happy, and I'm happy to say that for the last year about 90% of the letters that I have gotten from passengers have been complimentary of the service. The complaints have been distinctly in small numbers. But when we've had them, and they've been legitimate, we've tried to do something about them. Most of the trains that we have been running serve no purposes, except in the past to haul United States mail. That started to come off several years ago, as you know, and is now almost all gone from passenger trains. What we have done, accordingly, is to proceed, train by train, as the situation seemed appropriate, to discontinue these unused trains. In 1969 we discontinued about 1 million passenger train-miles, with a saving of roughly $1.5 million in out-of-pocket costs. In 1970 there are some more trains that will undoubtedly be discontinued—I don't know how many, but we will continue to try to remove the secondary trains that people are not riding. We have been quite successful in persuading both state and federal agencies to let us discontinue trains for which there is obviously no longer a need. Now as to main-line trains that we run, that conceivably may be part of a national grid, if one is set up—we probably have only one such train, the New York-to-New Orleans Southern Crescent. We have no plans to do anything about that train at this time or in the immediate foreseeable future. I, for one, however, do not think there is likely to be a long-range future for the long-distance passenger train. We have in our territory no high density short corridors that would lend themseves to a Metroliner-type of operation like that between New York and Washington.

"Our handling of the fireman case was an exception"
G. S. Paul

SAFETY

Q. What is Southern's position on Federal railroad safety legislation?

McGlothlin: Southern has had a vigorous and effective program of its own, starting long before general Federal safety regulation was suggested. For example, our Safety Department has developed a detailed manual for emergency procedures that I think is likely to become the model for the industry. Nevertheless Southern, like most railroads, supported the Federal Safety Bill that was developed by a Task Force appointed by Secretary Volpe that included representatives of labor, the state regulatory agencies, and the railroads. Unfortunately, in the Senate this Administration bill was greatly changed in ways we believe would impair safety. Most importantly, the bill as it passed the Senate would enable each State to enforce the supposedly uniform Federal regulations in its own way, both by its administrative agencies and by its state courts. We believe such disparate enforcement by all the various states and state courts as well as the Department of Transportation and the Federal courts would produce intolerable chaos. Furthermore, the Senate bill may be interpreted to give the States new and unwarranted power to make regulations that directly burden interstate commerce. We hope these faults can be removed before any Federal safety bill becomes law. Certainly interpretation and enforcement of Federal safety regulations should be entrusted to the Department of Transportation and the federal courts.

Part 2: High-capacity railroading

High-capacity railroading is a challenge to which Southern brings a background of extensive experience. Just how extensive was evident as RA Publisher Bob Lewis and Mechanical Editor Fred Houser interviewed W. H. Moore, vice president, operations, L. S. Crane, vice president, engineering and research, J. L. Jones, vice president, information services, W. D. McLean, vice president, purchases and real estate, and W. R. Divine, vice president and comptroller.

Q. Southern has gained a reputation as a pioneer in high-capacity railroading. What does this mean for today's operations?

Moore: The tempo of today's operations means that we must be doing everything better than we ever did before. This extends right across the board—improved track maintenance, more freight cars, greater utilization of motive-power capabilities, use of the computer to its full potential, and even complete relocation and rebuilding of lines, rather than trying to live with the past.

Q. In this connection, what is the operating department's principal headache today?

Moore: Derailments. They are so costly. Once you thought of a serious derailment costing $50,000. Today it is easy to get $250,000 to $500,000 just in equipment and lading damage. This is a major reason why we are laying 365 miles of new and relay welded rail each year. We are timbering and surfacing more track than ever. Just in maintenance of way alone, we are proposing a budget equal to or above the very heavy expenditures we made last year. That is the way it has been running for the past three or four years and that is the way it has to run to provide a plant that will efficiently and economically move the business.

Q. You would agree with the statement that "track may be about one generation behind equipment?"

Moore: I certainly would, but equipment has not maintained the pace we need. The greatest shortcoming of railroads over the past 10 or 15 years has been their failure to keep track maintenance standards up to what they should be to handle the heavier cars and locomotives. You need to have perfect track to handle today's six-axle locomotives and heavy cars.

Q. How about the indirect cost of derailments?

Moore: A good example of what happens when a portion of your line is temporarily out of business—although this was not a derailment—was the loss of our Tye River bridge in Virginia last August (RA, Oct. 13, 1969, p. 14). We estimated losses of $75,000 to $100,000 per day in detouring trains, additional per diem and loss of business that might not be recovered immediately. We worked around the clock and spent a lot more than I would have liked, but when I looked on the other side of the ledger, I knew we were moving in the right direction. We have been making a reduction in the number of derailments and the severity of those we have.

Q. What has Southern been doing about its track?

Moore: At the end of 1969 we had 2905 miles of welded rail, approximately 28% of our total track miles. But there are really four ingredients to good track maintenance and the fourth one is most often neglected. You must have good alignment, accurate gauge, good cross-level, and, last but not least, good drainage. When the drainage is inadequate and water stands in the track, your are in trouble. In 1969, we timbered and surfaced 1,883 miles of main track as compared with 1,657 miles in 1968. And 2,045 miles are proposed for 1970.

Q. Must standards of roadway maintenance be appreciably higher when lines are traversed by heavy cars and unit trains?

Moore: No unusual difficulties attend unit-train operation. Rail maintenance is dependent to a large extent on the gross tonnage handled—whether in unit trains or other trains. Some extra rail anchorage is required when unit trains are operated since they carry loads in one direction only and return light. Essentially it is just a matter of the number of wheel loads you put over a track in a given time. When it comes to heavy cars, the standard of maintenance must be about the same whether the route involved is used frequently, or only occasionally, by such equuipment. Our major problem for the past few years has been operation of six-axle locomotives. We have had increased gauge problems because of the rigidity of the six-wheel trucks. Major derailments have occurred with these units, especially in dynamic

Operations of high-capacity Southern were discussed by (left) W. D. McLean, L. S. Crane and W. H. Moore, by Railway Age's Fred Houser (above), and (right) W. R. Divine, RA's Bob Lewis and J. L. Jones.

with a Southern accent

braking which turned the rail over on the high side of curves and spread the gauge in other cases. Track has to be almost perfect to accommodate this power.

PERFECT TRACK

Q. Will concrete ties be valuable in producing this "perfect" track?

Moore: While we have used the concrete tie and plan to make further tests this year, our experience so far has not been good. Of course, we have installed them where we knew they would take more than ordinary punishment—particularly on heavy curves. Regardless of our experience, I would be the first to say that we must find a substitute for the wooden cross tie which is now approaching the concrete tie in cost. Possibly a steel tie can be developed. But, we just cannot continue to depend on a piece of wood to carry a 425,000-pound locomotive.

Q. European railroads seem to be converting rapidly to the concrete tie. Is their situation different?

Moore: I spent a month in Europe this past summer and rode several trains. They are not carrying the axle loads we have in this country. I would say that many of the railroads in Europe are over-maintained for the tonnages being handled.

Q. You spoke of welded rail. Just what has this meant to Southern?

Moore: Welded rail has been our salvation. It costs us $7.49 to weld two rails together and the conventional joint costs $19.04. And we figure about $1,400 per mile less maintenance cost on welded rail. We are now taking a look at welding rail in 2,880-foot lengths instead of 1,440-foot lengths. With recent developments in track circuits we do not need as many insulated joints and there is virtually no limit to the length of rail you can place in the track.

Q. Is welding the sole solution to the rail problem?

Crane: Not entirely. One section of our railroad where we laid new welded rail in 1960 is a line traversed by our unit trains. Although we turned this rail on curves at its half-life, in 1970 we are going to have to replace it completely on all the curves. This is why, after having a little experience with heat-treated rail, that we laid 35 miles last year and will probably go over 50 miles this year. We convinced ourselves that the benefits were substantial in relation to the incremental cost of heat-treated rail. Because on the routes involved you can't tell where the curves stop and the tangents start, we are laying heat-treated rail all the way through —solid 7.3-mile strings which are what our rail trains carry.

Moore: Actually there is no substitute for maintaining your track. With welded rail and other changes, we would hope to increase the speed limits for our freight trains in certain areas from the present 60 mph to 70 mph. Of course, there are also equipment limitations. Hard as it has been, we are also beginning to overcome these. The ban on interchange of cars over 50 years of age is a start.

Q. With the older cars on their way out, what about today's cars? While some roads have acquired 125-ton cars, Southern seems to have stopped at 100 tons. Is this an engineering and maintenance decision, or does it reflect traffic and marketing considerations?

Crane: It actually represents a joint decision by the operating, sales, marketing and engineering people. Southern does handle 125-ton cars where it can. Even at the standard 263,000-pound gross rail load for a four-axle, 100-ton car, we are already well above the load per inch of wheel diameter recommended by the Joint Committee on the Relation Between Track and Equipment of the AAR. So when we go to a 100-ton carloaded to 286,000 pounds as we do with our unit coal trains, we are crowding materials even further. With the 125ton car we are crowding still more. The principal problem is to "clear" such a car across your railroad with respect to bridge restrictions—particularly timber trestles. At somewhere around 286,000 pounds you begin o crush the pile caps on timber trestles. While we have "plated" these on many of our trestles, the whole plate then starts to crush through. As we rebuild are we putting cast concrete pile caps and cast bridge ties on such trestles. When we get this program across the railroad, we can begin to use 125-ton cars. It is important to realize that the incremental advantage of the 125-ton car is offset by what you have to spend to be able to handle it.

Q. After nearly a decade of experience with high-capacity cars, does Southern

have figures on their effects on wheel life?

Crane: Any unit-train or high-mileage cars do present some special maintenance problems. We operate six regularly scheduled unit coal trains that accumulate mileages from 45,000 to 110,000 miles annually. Tonnages range from 6,000 to 13,000 tons with power ranging from four to seven 2500-hp or 3000-hp units, some remotely controlled. The 110,000-mile trains operate over territory with grades in excess of 2% and with many sharp curves, up to 14 degrees. These trains actually traverse Saluda Hill in North Carolina where the grade is almost 5%. While the loaded operation is downgrade, it produces problems with respect to braking, brake shoe wear and wheel life.

The largest single expense of all these trains is wheels. The average wheel life on our 110,000-mile trains is about 128,000 miles—slightly over a year. Wheels are removed because of thin flanges. We have some 100-ton cars that require attention after 90 days because of flanges reaching AAR condemning limits. While we lubricate center plates every six months. Bill Moore stresses regularly that this bearing is one on which some research needs to be done. The AAR has made a few steps in that direction — specifying center-plate smoothness, lubricants and liners. We think that there is going to have to be some engineered design of solid bearing, or perhaps a roller bearing. All we know to do now is to specify a very smooth center plate and lubricate it every six months. With wheels costing about $750 a carset for material only, you have to appreciate the expensive maintenance involved. We buy a Class C heat-treated wheel and operate the cars at 286,000 pounds gross rail load.

Q. Are there other problems with the unit-train cars?

Crane: We have had problems with couplers, yokes, knuckles and draft keys. When these cars were designed we estimated that we would save about 250 pounds per car by buying a lightweight coupler and yoke designed by the AAR from high-strength Grade C steel, rather than standard Grade B steel. The lightweight couplers lasted about one year and the yokes about two years. As a result of our experience, the AAR decided to withdraw its lightweight design and now all couplers are made to the Grade B wall thicknesses.

When we had these cast in Grade C, they lasted five to seven years and then they began to fail. Now we are going to a grade E material which is a chromium-nickel-molybdenum normalized and tempered steel—the strongest metal the coupler manufacturers make. We are not yet in a position to estimate how long these will last but hopefully it will be longer than the seven years experienced with the second group of couplers. Remember these cars went into service in 1960 and it is now 1970.

The Coupler Manufacturers Engineering Committee has used our Asheville unit train operation almost as one of their proving grounds. They, along with AAR people, have been down many times to check the performance of these cars. We bought the original couplers with Grade C knuckles and these did not stand up. The knuckle is designed to fail before the coupler; we found them failing away ahead of the coupler. We also had trouble with the draft-gear follower plates; draft gears would cut into them giving you slack in the assembly. We went to an SAE 1060 steel quenched and tempered to increase its hardness. The knuckles are replaced on an annual basis. These changes, and others, have come about as a result of our joint studies with the coupler manufacturers to give us guidance on how we might extend the life of these parts, not allowing them to deteriorate as much as would be permitted for normal maintenance.

Q. Are today's unit trains an interim step leading to something more sophisticated?

Crane: Southern's articulated hopper car (RA, Sept. 27, 1965, p. 47) represents an effort to develop a more advanced type of car, There are problems with today's cars which Southern is attempting to overcome in design. Lateral rocking on jointed track is so much more severe that where we are running unit trains we are attempting to get welded rail throughout to mitigate rocking. We also hope that a more sophisticated car design will find application, but it will only do that if the cost/effectiveness can be related to the use of the car. We cannot find any user of our service who is interested in paying any incremental transportation cost for the ability to unload cars quickly by an advanced dump method, or even more quickly by the use of rotary dumpers. Rotary couplers represent added initial and continuing costs.

The essential feature of the unit train is utilization. We usually have a four-hour unload allowance. If you have a 450-mile run that takes 18 to 24 hours, an hour saved at either end does not do much for car utilization. You find the dumping time is a relatively small increment and it does not do much good to spend an incremental amount to get faster operation in that segment only. It really becomes an industrial engineering problem.

RADIO-CONTROLLED POWER

Q. Earlier reference was made to remotely controlled locomotives. What has this concept meant to your motive power operation?

Moore: Through actual experience, Southern has established meaningful guidelines for the operation of radio-controlled units. We have been able to secure new business through the handling of unit trains in this way. While we have operated as many as ten units on one train, currently we are utilizing a maximum of seven—four on the front and three back in the train.

While we also operate through freight trains with radio-controlled units, we have limited them to selected routes and selected schedules. Consideration has been given to both yard and road scheduling in the selection of these trains. In addition to their effectiveness, we have found that the use of radio-controlled units almost eliminates sticking brakes, permits a faster release of air brakes, consumes less time in the brake test, and allows trains to accelerate faster. On through trains we are confining the radio units to runs that do not pick up and set off cars enroute. An example would be Train 51—the Sparkplug (RA, Feb. 9, p. 18)—between Cincinnati and Atlanta with only a set-off and pick-up at Chattanooga. The real secret for trouble-free operation is the proper division of tonnage between the front and rear of the train, giving consideration to the profile of the line. We have handled as high as 13,000 tons. The regular trains on which we use remote control units run from 5,000 to 8,000 tons and we are now operating 20 to 30 such trains daily, including the unit coal trains.

> **We hope a more sophisticated car design will find application but it will only do that if the cost/effectiveness can be related to the use of the car . . . It really becomes an industrial engineering problem.**
>
> **L. S. Crane**

Q. Have such operating concepts and centralized traffic control enabled

Southern to become a single-track railroad?

Moore: Southern is essentially a single-track railroad now. CTC has permitted the removal of alternating ten-mile segments of second track between Grange, Va., and Atlanta, and between Cincinnati and Oakdale, Tenn. We continue to have double track in sections where foreign-road trains operate and at approaches to yards, at locations where local work is performed, and on steep grades where train speeds are limited. Operation of longer trains has reduced the number of meets required, even while we are handling increased traffic. With its computer capabilities, I feel Southern can continue to operate as essentially a single-track railroad, extending its CTC and double-

track segments as business requires. We are considering "double tracking" our railroad between Atlanta and Macon, Ga., by utilizing the Central of Georgia as a northbound main track and the Southern line as the southbound track. We are now extending sidings preliminary to installing CTC between Atlanta and Rome, Ga., a program which will be extended to Chattanooga to give us a CTC railroad from Cincinnati to Macon.

LINE RELOCATION

Q. Southern did a rather complete revamping of the line from Cincinnati to Oakdale a few years ago. Will the recent 2% write-off on fixed properties allow you to do more such work?

Moore: It would help but not to the extent needed. We have several locations where line changes, tunnel eliminations and reductions in curvature would facilitate movement of trains. We need to concentrate more on this type work if means can be found for amortizing the excessive expenditures that they entail.

Q. Can the simulation of railroad operations give you the optimum sizes of trains, lengths of sidings, number of motive power units and other components involved in high-capacity railroading?

Jones: Simulation is not an optimization process. If you have a simulation model which you can prove to be valid, it allows you to evaluate alternatives, but it does not optimize these alternatives. With a very few exceptions, you do not optimize with simulation. You can evaluate line changes—for example, we have a train performance calculator which very accurately simulates minimum schedule times, fuel consumption, drawbar pull and similar factors. You can propose a line changes and then run the before and the after and evaluate them. But the state of the art is not such that you can give it some figures and ask "what would be the optimum line change?"

We have another model—a network throughput model, which helps evaluate train service. But here again, the operating people must ask "what would happen if we did this?" Then there is linear programming which is the technique that often is mentioned for optimum car distribution. Unfortunately, there are so many restrictions in order to allow it to optimize that, except in rare instances, it no longer applies to real-life situations. Simulation is a tool but the correct state of the art is such that it is a situation of evaluating alternatives, as opposed to optimizing.

HELP FROM COMPUTERS

Q. What do today's computer capabilities mean to the operating department?

Moore: In the past year we have established a group called operations planning under an assistant vice president to determine what we need to do in the future—setting goals and means for accomplishing them. About 70% of the group's efforts are involved with Jack Jones' Information Services Department in having the computer produce the tools we need in operating the railroad. By simulation they can give us train lengths and tonnage ratings which can be "successfully handled." We can establish the lengths and locations of sidings required to meet and pass trains, select locomotives best suited for each district, and systematize train and locomotive scheduling.

On February 1, we changed our train numbering systems. Train numbers were changed so that the different types of trains could be more easily identified. The change will also allow us to better identify the cost of specific activities and to better analyze train performance. This systematic numbering will enable us to reap new computer benefits.

Q. Is computer technology now so real-time that you are able to establish the size of each train before its departure—or is it for longer term planning?

Moore: That state is fast approaching. One of the greatest handicaps to the operating man in the past has been getting the information after it is too late to do anything about it. Now we are beginning to produce tonnage reports, delay reports, exception reports that enable us to handle the problems while they are being created. Three or four times a day we have manually prepared such major terminal reports showing the loads, empties and tonnages on hand. We have just recently computerized this reporting and can now get immediate tonnage reports. If we don't have the locomotives to move the tonnage, we can immediately get them on the way.

Q. You have been getting new input/output units for four yards and other points. Does this represent an expansion of your present computer techniques, or is this an evolution to a new level of computer technology?

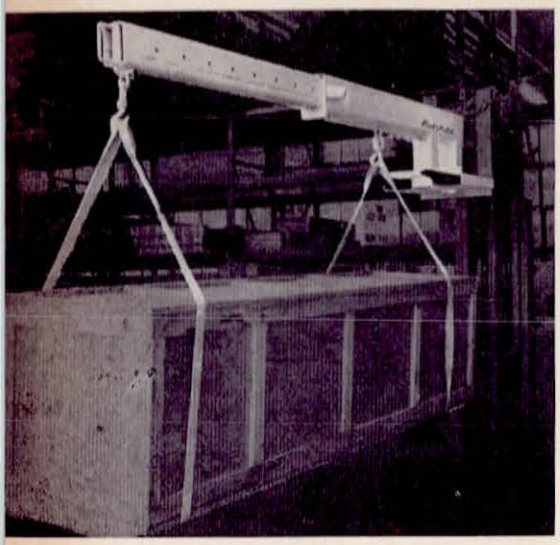
Jones: There are two things here. We do not use terminals in our yard offices for data input but only for inquiry or output. We still believe that the reporting of data by the field should involve "the fewest number of the simplest things." Keying 20 or 30 characters per car on a computer-connected terminal doesn't meet either the "few" or the "simple" conditions. Secondly, our new input unit, the Burroughs TC-500, is really third generation. Like everyone else, we started with keypunches and key verifiers to prepare data for computer processing. The second-generation devices were the key-to-tape units. The terminal we are going to now is a small computer, almost comparable in power to the computers that were being used in 1954 and 1955. It can be programmed to gain some throughput and some productivity on the part of the operator. When you went from keypunch to key-to-tape, you gained about 20% and it looks like there is another 20 to 30% that can be picked up through the use of a so-called "intelligent terminal" as opposed to a "passive terminal." We are proceeding to install these terminals, centrally in Atlanta, eliminating the use of punch cards on he Southern.

Q. What will third-generation computers mean to Southern?

Jones: An extension of capability—

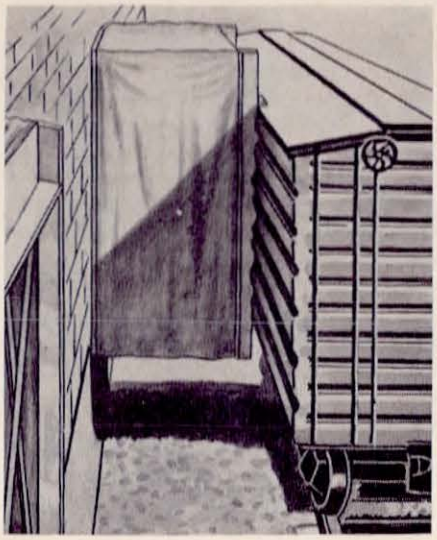
(Continued on page 75)

New Products Report



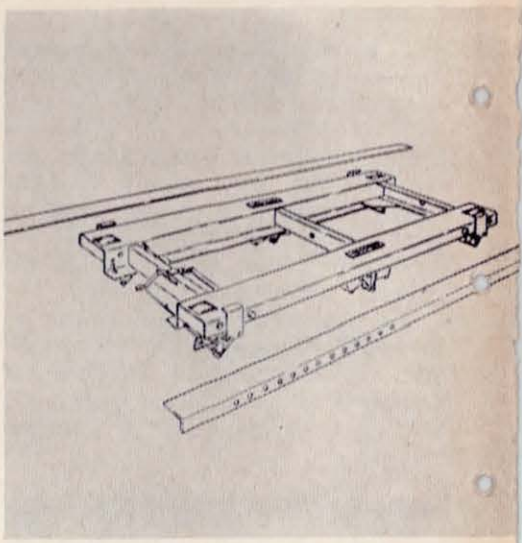
Jib crane adapter (RA-1)

By moving lift-truck forks into its base and attaching safety chain to mast, the Port-A-Jib becomes a portable jib crane for handling various long or cumbersome loads, or loads beyond reach of fork truck alone. Extendable inner boom of the unit has a swivel hook adjustable from 81 to 144 in. Rated single hook capacity is 3,000 lb at any hook position on the fixed boom; 1,500 lb at full extension of telescoping boom. *Wright-Hibbard.*



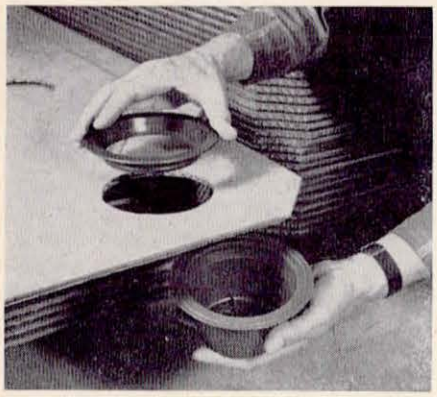
Dock shelter (RA-2)

A new railroad loading-dock shelter provides complete protection from all outside weather conditions. It encloses entirely the space between the car and a building. Newly designed hardware permits control of the unit from inside by one man. The cover is extended automatically between dock and freight car. The unit is designed for use on platform or non-platform docks and occupies only 18 inches of space when it is retracted. *W.B. McGuire Co.*



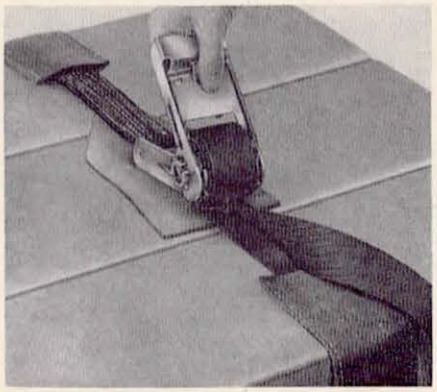
Flat-bed roller slide (RA-3)

The Model 7200 flat-bed roller slide increases deck height only ¾ in. or less on standard flat-bed trailers and is ideal for use on trailers with straight I-beam construction. Four large rollers roll the slide into position, and cast-bronze pads at center of hanger provide even weight distribution, support and stability. Lock pin is visible when slide is locked in place. Outside interlock or optional inside interlock are standard. *Binkley.*



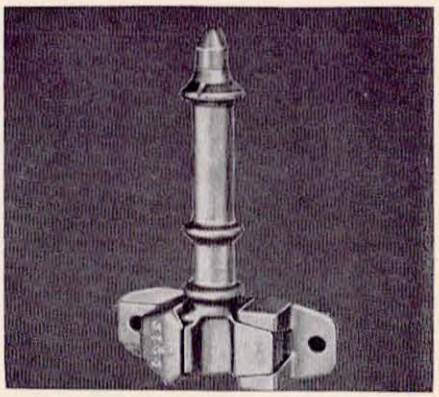
Expendable pallet (RA-4)

A new concept of an expendable, one-trip pallet called Buckboard (it sells for about $1), uses a special corrugated fibreboard with legs of high-impact polystyrene. Decks are available in any size or shape. They may be single-wall or double-wall construction and may be coated or treated for specific applications. Decks have die-cut holes at leg locations. A nine-leg pallet will handle over 2,000 lb and can be stacked 4 or 5 high. *Menasha Corp.*



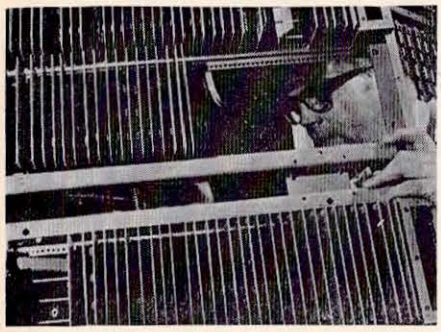
Web load binder (RA-5)

The Load Hugger, a web load binder with a ratchet buckle that will secure and lock up to 10,000 lb for safe handling and shipping, is available in single- or double-strap models of any length with capacities of 5,000 or 10,000 lb. Binders feature low-stretch polyester webbing and are also made in nylon. Strap terminals are available to suit specific needs. Leather ratchet buckle protectors and corner protectors are also available. *Lift-All Co.*



Anti-rack cam lock (RA-6)

The Model D-L lock which has been added to the Power Brace line of door securement systems combines the advantages of 100% anti-rack protection with the best features of a camtype lock. It will keep door securely closed even though lever may not be engaged in seal pin and seal plate. Lock, which is flush with door at all times, has been approved by Lloyds Register of Shipping, British Standards, I.S.O. and USASI MH5-1965. *Miner Enterprises.*



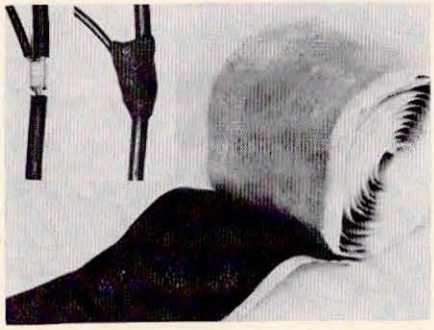
Switching processor (RA-7)

A switching dynalogic processor (SDP), using electronic switching techniques, has been introduced to add common control capability to small telephone offices.

The processor requires less floor space than previous similar equipment. This additive unit uses only 6 ft of space to serve a 1,000-line step-by-step telephone office. An additional 3 ft are required for a 2,000-line office.

SDP translates dialed numbers to meet switching requirements of the telephone network and has application in providing extended area service. This translation capability also reduces the use of intermediate selector circuits and gives greater capability for local switching at less cost.

When used for PABX applications, the system can omit the first digit during translation, thereby achieving greater flexibility. The system employs reed switches, sealed in glass, and integrated circuits to achieve maximum reliability. A self-diagnosis feature, coupled with plug-in modules, minimizes maintenance. *Stromberg-Carlson.*



Sealing compound (RA-8)

For sealing, insulating, and protecting, A-MP sealing and dielectric compound is a permanently pliable pressure-sensitive material that can be easily molded by hand to fit any configuration. Usable from −20° to +190°F, this black Butyl based mastic sealant adheres readily to any clean dry surface. Supplied in ⅛-in. thickness this compound is available in 10-ft. rolls 3¾-in. wide, or in boxes of 25 3¾-in. square pads. *American Pamcor Inc.*

Protective covering (RA-10)

A new covering for materials which need protection while in transit, during storage and when being handled is called Polytuf. It won't rip, tear, split or absorb water. Polytuf is a polyethylene fabric laminated to polyethylene film. The translucent, light-weight covering comes in different weights. Polytuf is lower priced than most cotton fabrics and just a little more expensive than non-supported film. *L. J. Schott Co.*

Two-way radio (RA-9)

Designated the MOCOM 70 radio, a new solid state FM two-way mobile unit has up to four frequency capability and is available with 30 and 45 watts RF power output in high band (450 MHz) and with 50 watts output in low band (150 MHz).

With its all-solid-state design, the new radio has no tubes and no power supply—assuring cool, reliable operation, longer component life, and a minimum of maintenance. This design feature also means instant communications since no warm-up is required.

Low current drain, consistent power output and continuous duty capability are other benefits. The sensitivity of the radio—0.3 uv in low band and 0.35 uv in high band—provides improved range and increased effectiveness.

The MOCOM 70 radio also provides maximum protection against adjacent channel interference with selectivity of more than 80 db down in low band and more than 90 db down in high band. *Motorola Communications & Electronics Inc.*

Solid-state relay (RA-11)

The MD/Series of completely solid state devices has been designed to work as a relay of switch in computer, communications, and other mediums. Components are packaged in a container which is completely encapsulated. The MD series will operate with current input of 800 microamps and up voltage input from 2.5 volts and higher. The unit will handle speed ranges from DC to as high as 6,000 baud. *Multiplex Communications Inc.*

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PLEASE SEND INFORMATION ABOUT PRODUCTS DESCRIBED ON PAGES 68-69 MARKED: RA-1 RA-2 RA-3 RA-4 RA-5 RA-6 RA-7 RA-8 RA-9 RA-10 RA-11

NAME ..... TITLE .....

COMPANY .....

ADDRESS .....

CITY ..... STATE ..... ZIP .....

• Inquiries can be processed only if title and company are shown. 2/23/70

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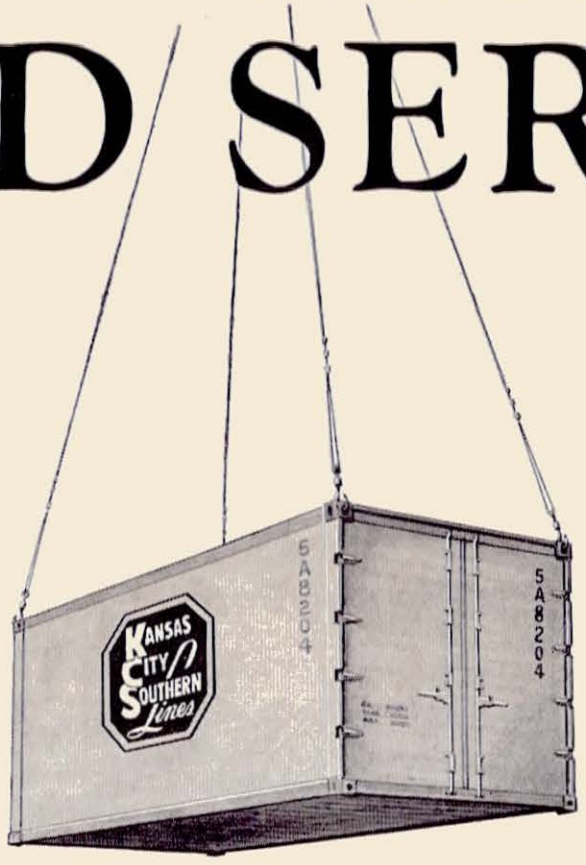

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Circle 4 on coupon page 69

Market Outlook

CARLOADINGS

Loadings of revenue freight in the week ended February 14 totaled 507,905 cars, the Association of American Railroads announced on Feb. 19. This was an increase of 7562 cars, or 1.5% compared with the previous week; a decrease of 3802 cars, or 0.7% compared with the corresponding week last year; and a decrease of 10,242 cars, or 2.0%, compared with the equivalent week. Ton-miles generated by carloadings in the week ended Feb. 14 are estimated at 14.7 billion, an increase of 1.9% above the corresponding week of 1969, and 3.4% above the 1968 week.

REVENUE FREIGHT CARLOADINGS

Commodity	Feb. 7 week	Jan. 31 week
Grain	25,456	27,732
Farm products	18,120	22,178
Metallic ores	20,504	19,157
Coal	95,638	99,780
Crushed stone, gravel & sand	13,951	19,191
Nonmetallic minerals	8,737	8,428
Grain mill products	20,996	21,438
Food & kindred products	27,053	27,278
Primary forest products	23,108	25,532
Lumber & wood products (except furniture)	13,834	13,741
Pulp, paper & allied products	24,946	25,551
Chemicals & allied products	29,696	28,315
Petroleum products	11,646	11,800
Stone, clay & glass products	16,890	16,632
Coke	8,178	7,855
Metals & products	28,158	29,219
Motor vehicles & equipment	16,931	21,752
Waste & scrap materials	14,619	14,801
Forwarder & shipper assn. traffic	7,701	7,792
All other carloads	67,808	68,555
LCL traffic	1,373	1,354
Total cars loaded	500,343	518,081

CUMULATIVE TOTAL 6 WEEKS	1970	1969	1968
	2,843,535	2,934,552	2,949,738
Estimated revenue ton-miles (billions) 6 weeks	81.8	82.4	80.5

PIGGYBACK CARLOADINGS

U. S. piggyback loadings for the week ended Feb. 7 totaled 24,764 cars, carrying 42,525 trailers, compared with 26,055 cars, carrying 42,851 trailers, in the corresponding 1969 week. Loadings for 1970 up to Feb. 7 totaled 137,168 cars, carrying 234,023 trailers, compared with 142,151 cars, carrying 232,506 trailers, in the corresponding period of 1969.

FREIGHT-TRAIN CARS

● *Lehigh Valley.*—Accepted delivery, from Bethlehem Steel, of the first of 100 heavy-duty gondola cars being acquired at a cost of $1,420,000. The cars are 52½-ft long, 5 inches wider than standard gondolas, and are equipped with roller bearings. All 100 are scheduled to be in service before April 1.

● *Pacific Fruit Express.*—Is acquiring 1,200 new multi-purpose mechanical refrigerator cars from Pacific Car & Foundry. Delivery is to be completed by the end of next May. The order increases PFE's mechanical refrigerator fleet to almost 11,900 cars. In addition to self-contained diesel refrigeration units and foamed-in-place insulation, the new cars will have 10½-ft. doors, wall-to-wall movable gates to lock loads in place, and impact-absorbing cushion underframes.

● *Roscoe Snyder & Pacific.*—Arrangements have been completed for the RS&P to lease 100 40-ft, 50-ton-capacity, refurbished box cars from the United States Railway Equipment Co.

PIGGYBACK

● *Trailer Train.*—Ordered an additional 511 cars as follows: from ACF, 150 standard-level and 50 all-purpose cars; from Bethlehem Steel, 153 standard-level cars; from Pullman-Standard, 150 standard-level and 8 flat cars. All cars will be 89-ft, 4-in. long, except the flat cars, which will be 60-ft long. On Feb. 9, TTX had 55,384 cars in service or on order.

LOCOMOTIVES

● *Penn Central.*—Has ordered 112 diesel-electric freight locomotives costing about $23 million. Ninety-three units have been ordered from Electro-Motive and 19 from General Electric. Deliveries are scheduled for the first half of 1970. The units will range from 2,000 to 3,000 horsepower. Fifty-eight will have four electric driving motors and will be assigned primarily to secondary and branch line service. The other 54, having six motors,will be used in heavy yard switching service.

FOREIGN

● *Australia.*—World-wide bids will be sought for construction of a 250-mile standard-gauge railway between Kalgoorlie and Esperance. Inquiries to Chief Civil Engineer, 605 Wellington St., Perth, Western Australia.

● *Costa Rica.*—Ferrocarril Electrico al Pacifico announced a $1.5-million equipment program that calls for purchase of three electrically-powered passenger trains (each consisting of an engine and three coaches), two diesel locomotives, 100 cargo containers, and an 18-metric ton crane.

● *Orders and deliveries.*—Orders were placed for 9,022 new freight cars in December 1969, bringing the total ordered during the year to 84,345, compared with 63,556 new cars ordered in 1968. In addition, cars ordered rebuilt in 1969 totaled 5,906, compared with 8,107 cars rebuilt in 1968. Backlog of new cars on order and undelivered on Jan. 1, 1970, was 46,751, compared with 31,735 on Jan. 1, 1969, and 43,460 on Dec. 1, 1969.

FREIGHT-TRAIN CARS ORDERED AND DELIVERED AND BACKLOG OF ORDERS

ORDERED

	Dec. 1969	Nov. 1969	Dec. 1968	12 mos. 1969	12 mos. 1968
To be built new by car builders	4,753	3,456	7,039	65,401	49,386
To be built new in R.R. shops	4,269	4,808	2,317	18,944	14,170
To be built new—total	9,022	8,264	9,356	84,345	63,556
To be rebuilt	550	0	1,000	5,906	8,107
TOTAL ORDERED	**9,572**	**8,264**	**10,356**	**90,251**	**71,663**

DELIVERED

Built new by car builders	4,640	4,941	3,706	54,072	38,961
Built new in R.R. shops	1,125	1,332	830	14,380	17,271
Built new—total	5,765	6,273	4,536	68,452	56,232
Rebuilt	801	527	865	6,944	12,604
TOTAL DELIVERED	**6,566**	**6,800**	**5,401**	**75,396**	**68,836**

ON ORDER AND UNDELIVERED

	Jan. 1, 1970	Dec. 1, 1969	Jan. 1, 1969
To be built new by car builders	35,508	35,361	24,535
To be built new in R.R. shops	11,243	8,099	7,200
To be built new—total	46,751	43,460	31,735
To be rebuilt	3,586	3,837	4,624
TOTAL ON ORDER	**50,337**	**47,297**	**36,359**

NEW FACILITIES

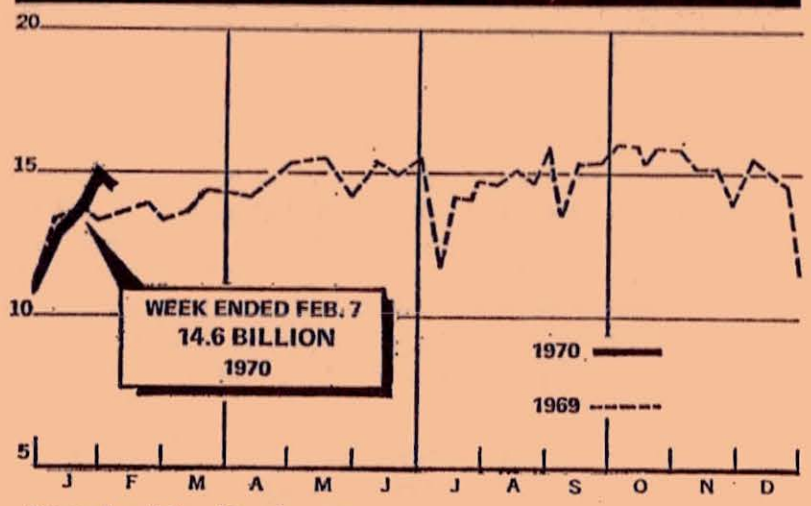
● *Chesapeake & Ohio/Baltimore & Ohio.*—Ordered, for installation on diesel-electric locomotives, 220 3R all-solid-state railroad radios and 200 accessories from the Signal & Communications Division of WABCO.

● *Port Authority-Trans Hudson.*—Awarded a $500,000 contract to Bonaco Construction Co., New York, for rehabilitation of track on the PATH system between Journal Square in Jersey City and Newark.

● *Seaboard Coast Line.*—Ordered from the Signal & Communications Division of WABCO 60 sets of 3R all-solid-state railroad radios for installation on diesel-electric locomotives.

RAIL FREIGHT TRAFFIC TRENDS

BILLION TON MILES (Estimated)



Source: Association of American Railroads

SHIPMENTS OF RAILROAD STEEL PRODUCTS

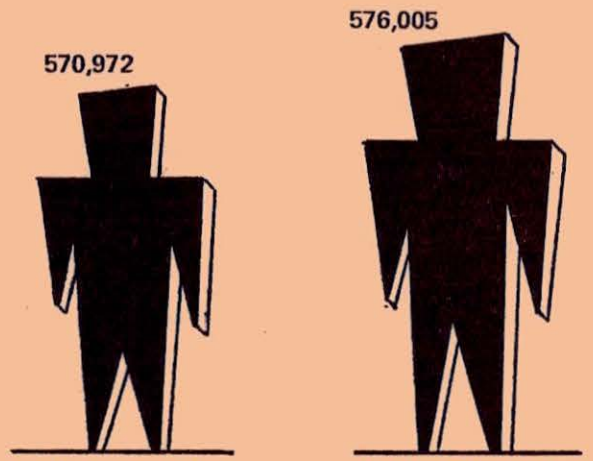
(DECEMBER AND 12 MONTHS 1969)

	NET TONS			
	December	Per Cent Change*	Twelve Months	Per Cent Change*
Rails, trackwork and equipment	90,669	+20.6	1,046,122	+9.0
Freight and passenger cars and locomotives	179,155	+3.7	2,260,372	+12.8
Street railways and rapid transit systems	3,144	−37.4	51,636	−36.6

*Per cent change compares 1969 periods with like 1968 periods.
Source: American Iron and Steel Institute.

RAILROAD EMPLOYMENT

(CLASS I LINE-HAUL RAILROADS)



Source: Bureau of Accounts, ICC.

All statistics compiled, computed and formatted by TRADE*QUOTES Division of National Information Services, Inc. Cambridge, Mass. 02139

RAILWAY AGE Stock Report

TWO WEEKS ENDED MONDAY, FEBRUARY 16, 1970

	PRICE 1969-70 RANGE (1)	PRICE 1 YEAR AGO	PRICE CLOSE FEB 16 1970	PRICE 2 WKS NET CHNG	PRICE 2 WKS PCT CHNG	VOLUME 2 WKS IN 00'S	VOLUME LAST 2 WKS 00'S	VOLUME AVGE IN 00'S (2)	INDEX PRICE JAN 2 1970	INDEX CHNG TO DATE (1)	INDEX PCT CHNG
RAILROADS											
CHESAPEAKE & OHIO	49- 75	74	53 1/8	0	0.0	339	204	271	54 3/4	-2	-2.9
CHIC MILW ST.P & PAC	14- 58	57	22 5/8	+7 3/8	+48.3	753	409	460	16 3/8	+6	+38.1
CHIC, ROCK ISL & PAC	19- 31	29	20 5/8	+1 5/8	+8.5	74	40	54	19 3/4	+1	+4.4
DERECO PFD B	50- 74	72 3/8	55 1/2	+1 3/8	+2.5	31	70	46	53 3/4	+2	+3.2
GREAT NORTHERN	39- 64	61 7/8	42	-1 7/8	-4.2	746	617	591	41 7/8	0	+0.2
GULF, MOBILE & OHIO	63-118	114 1/8	70 1/4	+3 5/8	+5.4	39	22	34	63 1/2	+7	+10.6
LOUISVILLE & NASHVLL	70- 96	89 3/4	72 1/8	+ 3/4	+1.0	41	79	74	71 1/4	+1	+1.2
MISSOURI PACIFIC A	62- 87	87	65	+1	+1.5	11	12	14	63 1/4	+2	+2.7
NORFOLK & WESTERN	75-110	107 7/8	80 3/8	+1 1/8	+1.4	434	474	445	83 1/2	-3	-3.7
NORTHERN PACIFIC	37- 66	64 5/8	39	0	0.0	436	229	262	39	0	0.0
READING CO	11- 27	23 5/8	14 1/4	+1 1/4	+9.6	170	180	147	12 1/4	+2	+16.3
ST LOUIS-SAN FRNCSCO	38- 58	52 5/8	40 3/4	+ 3/8	+0.9	75	177	123	40 3/8	0	+0.9
SOO LINE	25- 44	43	28 1/4	+2 7/8	+11.3	92	36	53	27 1/4	+1	+3.6
SOUTHERN	42- 66	61	46 7/8	+2 3/8	+5.3	425	446	382	46 3/4	0	+0.2
WESTERN PACIFIC	15- 46	43 3/8	19	+3 1/4	+20.6	386	280	435	19 1/2	-1	-2.5
DIVERSIFIED COMPANIES											
CANADIAN PACIFIC	60- 94	87 1/4	64	-1 7/8	-2.8	74	101	84	73 1/2	-10	-12.9
ILLINOIS CENTRAL IND	26- 36	44 3/4	28 1/2	+ 5/8	+2.2	385	512	668	30 5/8	-2	-6.9
KATY INDUSTRIES	9- 29	24 5/8	11 7/8	+1 5/8	+15.8	191	299	286	10 5/8	+1	+11.7
NORTHWEST INDUSTRIES	11- 28	40 1/8	15 7/8	+3 1/4	+25.7	2702	1183	1885	13 3/4	+2	+15.4
PENN CENTRAL CO	25- 72	62	26 1/8	-1 3/8	-5.0	2999	3041	2979	29 1/2	-3	-11.4
RIO GRANDE INDUST	11- 20	N/A	11 3/4	+ 5/8	+5.6	151	129	119	11 3/4	0	0.0
SANTA FE INDUSTRIES	23- 40	36 3/8	23 7/8	+ 1/8	+0.5	1503	1178	1282	25	-1	-4.5
SOUTHERN PACIFIC CO	30- 47	43 1/4	32 3/8	+ 7/8	+2.7	875	965	959	33 1/4	-1	-2.6
UNION PACIFIC CORP	40- 54	N/A	41 1/4	+ 1/2	+1.2	587	797	673	46	-5	-10.3
MOTOR CARRIERS											
ASSOCIATED TRANSPORT	9- 19	17 1/8	8 3/4	-1 1/4	-12.5	145	102	115	11 3/4	-3	-25.5
CONSOL FREIGHTWAYS	24- 44	42 3/4	26	+ 3/4	+2.9	512	1126	781	28 1/2	-3	-8.7
MC LEAN TRUCKING CO	33- 65	63 1/8	36	+2	+5.8	289	245	257	44 3/8	-8	-18.8
OVERNITE TRANSPORT'N	18- 34	32 5/8	19	+1 1/2	+8.5	60	72	63	18 5/8	0	+2.0
PAC. INTERMTN EXPRESS	12- 34	31 5/8	12 3/4	- 1/2	-3.7	366	108	194	15 3/4	-3	-19.0
ROADWAY EXPRESS	20- 29	31 1/2	20 1/2	-1	-4.6	(3)	-	-	26 1/2	-6	-22.6
TRANSCON LINES	9- 17	20 5/8	9 1/2	0	0.0	429	320	607	11 1/2	-2	-17.3
YELLOW FRGHT SYSTEM	21- 30	76	21 1/2	- 1/4	-1.1	(3)	-	-	25 1/2	-4	-15.6
AIRLINES											
AMERICAN AIRLINES	21- 39	36 5/8	28 1/4	+4 1/4	+17.7	4993	3481	7229	31	-3	-8.8
DELTA AIR LINES	26- 40	38 7/8	31 5/8	+3 1/4	+11.4	2199	1782	2111	30 3/4	+1	+2.8
EASTERN AIR LINES	12- 32	29 1/8	15 1/4	+2 1/8	+16.1	2984	2154	2739	15 1/2	0	-1.6
TRANS WORLD AIRLINES	17- 49	46 3/8	20	+2	+11.1	2198	2048	2260	23 7/8	-4	-16.2
UAL INC (UNITED)	20- 49	44 3/4	24 5/8	+2 1/4	+10.0	3888	2922	3492	28	-3	-12.0

ALL BUT TWO OF THE ABOVE SECURITIES ARE LISTED ON THE NEW YORK STOCK EXCHANGE; ROADWAY EXPRESS AND YELLOW FREIGHT SYSTEM ARE TRADED OVER-THE-COUNTER.

(1) TO NEAREST DOLLAR
(2) AVERAGE TWO-WEEK TRADING VOLUME SINCE JANUARY 1, 1970
(3) VOLUME IS NOT REPORTED FOR OVER-THE-COUNTER ISSUES

Southern accents high capacity

(Continued from page 67)

enabling us to do some things we already knew how to do, but for which we simply did not have the capacity. We put these third-generation machines in later than many others, having gotten five years out of our second-generation units. I believe the early Christians get the hungry lions. I have enough hungry lions without wrestling with untested computers. I don't get paid to help IBM check out their hardware or go through the pains of their software programs not working properly. I get paid to solve railroad problems. So we waited until the electronic hardware was very satisfactory and now we have the basic machines which will last us 8 to 10 years.

Q. What will be the principal use of these computers in the next decade?

Jones: Support of railway operations. In the 1950s and 1960s, the computer became a highly refined aid in accounting. While everbody talks about how well they're doing with their computers in operations, the suface has barely been screatched. Our computer is now keeping dynamic inventories of 89 points on our railroad—when any car moves for any reason the computer instantly updates the car inventory. For each car it knows the type, whether it is empty or loaded, when it came in, and includes a code which tells in what train and block that car should move out. The operating department will query "What is the tonnage at Knoxville?" The computer replies that there are so many loads, empties and tons for Chattanooga, so many Chattanooga shorts, so many for the Maryville local, so many for Atlanta.

We are currently reworking our simulation model so we can answer such questions as "What would happen if we ran an extra train from Atlanta to Chattanooga?" Will that help relieve the congested yard at Atlanta, or will it just move the problem to Chattanooga? Or does it make no difference because that's really not the problem? I think we will get to the point where we can answer such a question in five or six years.

Q. Will the computer be an effective means of increasing car supply?

Jones: I think definitely so. Most of our general service equipment now moves under what we call flow rules. Origin and destination studies tell us what areas are chronic surplus areas for particular types of cars and what areas are chronic deficit areas. Out of this we devise rules which say, for example, that if you have a 50-ft box car in Meridian, Miss., and that is a surplus area, and we do not directly connect with the owning line at this point, and there is no load for this car within the next 24 hours, then it should be routed to Birmingham, a chronic shortage area. Now I view this as a crude way of distributing cars, and it can and will certainly be improved upon. But having these flow rules does get the bulk of the cars moving in the right directions. The computer can police these rules.

Q. Isn't more effective distribution and utilization of cars the ultimate goal of the AAR's TRAIN system?

Jones: The TRAIN system only deals, currently, with interchanges of cars. It knows essentially by railroad the location of car. But it does not seem to me that there is any hope, at least in the foreseeable future, that a single central computing center could keep track of all the locations of all the cars with anywhere near the timeliness and accuracy that the individual railroad can. It's a data discipline problem. No matter how big and fast and fancy your computers are, there are two things

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your input data has got to have: one is accuracy, the other is timeliness. You only add one more level of difficulty when you try to bring this into a national cycle.

Q. Are you suggesting that TRAIN may not be very valuable, after all?

Jones: No. It definitely has a place and will serve valuable needs. It has potential in broad terms of national distribution of car fleets. Right now when a car goes off our line we don't know sometimes within 10 days or two weeks where that car is when we try to get it back. That's because the junction records of the railroads are that far behind. TRAIN can certainly be effective there, and there will be many other things TRAIN can do. But there are limitations. The TRAIN computer, for example, is a 360 model 40. We don't use such a small computer for processing on the Southern.

Q. How about interchange of data between railroads?

Jones: It's coming. For example, the Illinois Central has said they want to work with us on this. Today, we originate a load in Atlanta and we're going to haul it to Birmingham; we give it to IC, which in turn may later give it to somebody else. The ridiculous thing about this carload is that we carefully put that information into the computer, we correct it, we keep monitoring it. Then the car appears on an interchange track for at IC Birmingham, and the same process begins again; and maybe again when the IC turns it over to another railroad. That's pretty stupid. We ought to store up all of the information that relates to the IC and allow the IC computer to call us periodically and say, "What have you got for us since we called you last time?" At that point, a computer to computer basis, we give them all of the waybill information that concerns them, even perhaps an estimate of when that car is going to get to Birmingham. We're talking, really, about reserving space on freight trains just like you reserve space on airlines. But we need a reservation system first.

Q. Do you see ACI supplementing your other data gathering and transmitting systems?

Moore: ACI will have an appreciable effect on Southern when it is perfected. We plan to use it eventually on both road and yard and will interface the information received through ACI with waybill information obtained through LDX to produce hump lists, interchange reports, car accounting aids, yard inventory, car movement records and train movement records. We expect ACI to not only improve the accuracy of reporting, but also efficiency.

Jones: ACI will be primarily a supplement to our current data capturing systems because all you get from ACI is car initial and number and direction while there are numerous other things you need to know about a car, such as where it is headed and whether or not it is loaded. Southern already has its own system for capturing data to get the accuracy and timeliness needed. The capability of the LDX system is very good in that regard. Right now we see no better way of capturing the operating information needed from that waybill.

Q. What is the price picture—in terms of operating materials and supplies as well as capital goods?

McLean: First of all, I can say that our purchasing generally will hold at about the same level as it did in 1969. As for prices, everyone, from the housewives to the industrial buyers, are faced with increases. I don't see any fixed pattern of price increases. Some prices have gone up, others have stayed at the same level as last year or the year before, and others surprisingly have gone down. Just last year we restructured our purchasing practices, both organizationally and functionally, and we expect to achieve new economies and efficiencies which we expect will largely offset price increases. ■

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Viewpoint

Can real, meaningful change come to the ICC?

If you believe what you hear—and, hopefully, in this case you can—the first permanent chairman of the ICC will be a man who knows transportation. Specifically, he will be a major user of transportation. He will not be a professorial type, nor will he be a man whose view has been shaped (or warped) by long associations with one mode of transportation.

Unfortunately, he may also be a man who will have to put up with operating conditions which are less than optimum from a standpoint of good business management—even for a government agency. As matters stand, he may find that the much-heralded "reorganization" of the ICC is something less than that.

Government-service has already lost one excellent candidate for the job—General Mills' vice president-director of transportation, W. K. Smith, who took a long look at the "new" chairmanship and decided to stay with General Mills.

Rumor has it that at least three other top industrial traffic officers are, or have been, under consideration. Rumor has it that there is a certain determination, in influential Administration circles, to bring such an experienced transportation man onto the Commission in its top job.

But there is a hang-up. The job and its functions just aren't that much different from what they have been. True, the chairman would serve at the pleasure of the President, and the chairmanship would not be rotated annually. But that's about the only "benefit" actually accruing from the reorganization plan which President Nixon submitted to Congress in mid-1969. A second part of the plan calls for the chairman to have "administrative authority," and this sounds good. In fact, it is little more than a formalizing of a situation which has existed informally since 1961.

Many things *could* be done to change the Commission. Many things probably *should* be done. Its size could be cut. Its workload could be cut—for instance, by setting up new procedures for handling the flood of motor-carrier certification cases which some observers regard as both overwhelming in volume and insignificant in importance by comparison with other ICC functions. Broader-based staff help could be provided—industrial engineers, and more economists. Some form of public counsel might be provided—on a kind of "friend of the court" basis, as public representatives in debates between carriers and shippers. Commission-watchers do not lack for suggestions on improving the ICC operation.

Essentially, transportation regulation—however much or little there is—has to be regarded as an economics-related task. Now, however, ICC critics contend that basic transportation problems—of economics, service, operations—are being considered and decided upon legalistic bases. The critics think this is wrong—and they can make a convincing case for change.

The present commissioners can't be blamed, of course, for the faults that can be laid on the ICC's doorstep. Law, history and precedent are responsible, in large part, for those faults. Today's task is one of correction—and that means that ICC "reorganization," hopefully, is only beginning.

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